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CAA Lists 5,093 Locations In National Airport Plan

The 1950 national airport plan, listing 5,093 locations at which airports should be constructed or improved to meet existing and anticipated demands for air service over the next 3 years, was announced last month by D. W. Rentzel, Administrator of Civil Aeronautics.

This is the fourth in a series of such plans prepared by the CAA under the Federal Airport Act of 1946, which requires the Administrator to prepare and revise annually a 3-year forecast of airport construction or development projects considered necessary to provide a system of public airports adequate for the needs of civil aeronautics.

No funds, Federal or sponsor, are assured by inclusion of a location in the plan. However, on the basis of appropriations to be made by the Congress, the CAA will include in its coming fiscal year program those locations which according to the plan show the greatest need.

For its own guidance, the CAA has estimated the cost of the work outlined in the plan at \$928,033,000, which, broken down, would be \$445,688,000 in Federal and \$482,345,000 in sponsor funds.

Among the 5,093 locations listed in the 1950 plan, 4,964 are within the continental limits, while 129 are in the territories. Of the total projects, 2,316 are for improvement of existing airports, while 2,777 are for completely new fields.

The 1950 plan lists 2,465 class I airports, the

smallest type, of which 1,848 would be new and 617 for improvement; 1,078 class II airports, of which 440 are new and 638 are for improvement; 597 class III airports, of which 143 are new and 454 for improvement; 575 class IV and larger airports, of which 25 are new and 550 for improvement. In addition, 312 seaplane bases and 66 heliports are listed in the plan.

The 1950 plan is broken down by States and each project listed shows present and proposed class of airport, type of scheduled air service, and status under the Federal Airport Act. State summaries break the complete plan down by airport class, new airports, those recommended for improvement, and estimated cost in Federal and sponsor funds.

Copies of the 1950 national airport plan may be obtained from the Superintendent of Documents, United States Government Printing Office, Washington 25, D. C., at 75 cents per copy.

New TSO Series Cuts 12 Sections Of Regulations

Twelve sections of the civil aeronautics regulations have been either reduced in size and complexity or eliminated as a result of a recent technical standard order on aircraft safety belts issued by the Civil Aeronautics Administration. This marks the first time that the new TSO system has literally eliminated portions of the regulations.

The TSO on belts establishes as the minimum safety requirement a specification developed by the National Aircraft Standards Committee, which is made up of aircraft manufacturing industry representatives. It allows the manufacturer of safety belts to certify that his product meets this specification. Thereafter his product may be used in all civil aircraft without further test.

Technical standard orders of the new "C" series have set forth CAA requirements for aircraft components and materials on which specific approval standards are not contained in the airworthiness requirements of the civil air regulations. However, their use is now being extended to some subjects already covered by the CAR, thereby permitting deletion of these requirements and consequent simplification of the regulations.

Another Advantage Cited.—Another important advantage of the TSO system is that it usually makes use of recognized government specifications or established industry specifications which have been found acceptable by the CAA, thereby eliminating the creation of additional specifications.

Prior to inauguration of the TSO system in August 1947, manufacturers of components, accessories, and equipment were required to submit samples of their product for CAA laboratory test to determine that it met the applicable requirements. Following these tests, the specific model of the product was granted CAA approval, a system requiring extensive time, cost, and paperwork. The TSO system eliminated all this complexity and granted approval to a product when the manufacturer certified that it met the standards specified.

To date, 22 TSO's have been issued in the C series.

Moves Made To Simplify Rules for Airworthiness

Closer cooperation in the certification of aircraft, as an aid to simplification of general airworthiness requirements, is foreseen as a result of technical discussions between British, Civil Aeronautics Administration, and Civil Aeronautics Board representatives in Washington last month.

The meeting was part of each nation's participation in the International Civil Aviation Organization. As a result of developments at the third session, airworthiness division, Air Navigation Commission, held in Montreal last February and March, it was deemed advisable that the British and American delegations hold informal meetings seeking to obtain agreement on numerous technical matters preparatory to the next meeting of the division in Montreal in 1951.

One of the purposes of the meetings in Washington was to determine if aircraft accidents can be traced to design or operating features of various aircraft such as wing loading, drag/weight ratio, performance, etc. Studies of aircraft accident statistics, together with information on the design and operating characteristics of the airplane at the time of the accident will be made.

If this approach to the problem proves sound, a long step may be taken toward even further reductions in aircraft accidents through elimination of such features and characteristics as prove significant in accidents. This move would further increase the already high safety record of scheduled air transportation.

Rentzel Urges Legislation to Aid In Developing New Type Transports

Enactment of legislation to stimulate prototype transport aircraft development was recommended by D. W. Rentzel, Administrator of Civil Aeronautics, in a statement before the Senate Interstate and Foreign Commerce Committee last month. Leadership of the United States in the major field of civil aircraft design has been challenged by the Canadian and British development of turboprop and turbojet transport aircraft, he warned.

"As you know," the Administrator told the committee, "the importance of retaining leadership in aircraft, design, development, and manufacture was recognized by both the President's Air Policy Commission and the Congressional Aviation Policy Board. In March of 1948 the latter recommended that the Government sponsor the design and development of transport and cargo aircraft intended primarily for commercial use, but suitable for certain military purposes. It was the recommendation of the Congressional Aviation Policy Board and the related findings of the President's Air Policy Commission that caused the introduction of legislation dealing with the development of prototype aircraft."

Recent Flights Cited.—Mr. Rentzel cited the recent flight of the Canadian-developed and manufactured Avro Jetliner transport from Toronto to New York City in 59 minutes and 56 seconds. "This highly successful flight," he said, "coupled with the continued satisfactory testing by the British of their DeHavilland Comet, including its 5-hour 10-minute nonstop flight from London to Cairo, forecasts the unvarnished fact that reciprocating engine powered aircraft inevitably will be superseded by the turbine-propeller combination and the turbojet engine," the Administrator said.

Due to the past leadership of the United States, the commercial air fleets of the world today are composed predominantly of piston engined transports of United States manufacture, Mr. Rentzel pointed out. "The successful use by the Canadians and British of the two jet transports just described makes it plain that we can no longer expect this condition to exist unless similar developmental work is undertaken and prosecuted vigorously by the United States aviation industry," he continued. "In all probability, the Avro Jetliner will be submitted to the Civil Aeronautics Administration for certification under our regulations for use as a commercial transport aircraft under American registry. This action will make it possible for United States airlines to purchase this aircraft of Canadian manufacture for use in operation in the regular scheduled service of the United States flag air carriers."

Preliminary Work Undertaken.—"This record of actual construction and testing of models of commercial transport aircraft by the British and Canadians must be compared with the simple fact that as of today, there is no United States aircraft manufacturer engaged in the actual construction of a turbojet- or turboprop-powered aircraft designed for commercial transport use. The only work of this kind that we know to be going on in the United States is the action of the Allison Division of the General Motors Corp. and the Consolidated Vultee Aircraft Corp. These two companies are engaged in preliminary work looking toward the conversion of the Convair 240 from conventional reciprocating engines to the use of turboprop engines.

"The limited degree of development of ultra modern transport aircraft occurring in the United States stems primarily from the fact that the cost to the United States aircraft manufacturers of such development at this time is so high that there is little likeli-

hood of recovery by the manufacturer of this original investment."

The high costs of labor and materials, the complexity of modern transport category aircraft and the expense of necessary service testing incident to the development of such aircraft into a safe, marketable condition, all operate to restrict the independent development of such aircraft by the manufacturing industry, Mr. Rentzel said.

Would Provide Incentive.—Of the legislative proposals before the Committee, Mr. Rentzel said that, in his opinion, S. 3504 would provide the most realistic solution of the problem. "S. 3504 will provide an incentive for the development and construction of prototype aircraft by the United States manufacturing industry," he pointed out. "It will substantially relieve the manufacturer of the costs of type certification, service testing, and minor modification. While the sum of \$12,500,000 provided for this purpose is not large in comparison to the cost the manufacturer bears in developing new transport planes, I believe it will have far-reaching benefits.

"In addition to the assistance in connection with type certification, service testing, and minor modification of prototype aircraft, S. 3504 would authorize the operation of presently available turbojet- or turboprop-powered aircraft under conditions simulating, to the greatest possible extent, scheduled airline operations. Experience could be thus obtained in the safety problems related to the operation of such aircraft."

"The provision in S. 3504 for the service testing of prototype aircraft developed by the manufacturing industry would provide an opportunity for a prolonged period of in-service testing in which operations and maintenance experience could be obtained. Thus, the airlines will be able to buy with confidence a proved, safe aircraft whose operation, service, maintenance, and training requirements are known factors. To assure that we obtain as much information as possible, and assure the safest type of aircraft, it is contemplated that under this bill each new aircraft would receive in the neighborhood of 1,000 to 1,500 hours service testing."

Three Types Most Needed.—Under the program which would be authorized by S. 3504, the Government would be able to stimulate the development of the three major types of commercial transport aircraft most needed at this time, Mr. Rentzel said. "First, the Federal Government could expedite the development of turbojet- and turboprop-powered commercial aircraft," he continued. "Secondly, we could afford an opportunity for the development of a commercial all-cargo transport category aircraft. Lastly, the Federal Government could aid the development of a feeder airline aircraft essential to provide economic and efficient air transport service to the smaller communities of this Nation.

"Major development in the use of turboprop and turbojet propulsion for commercial transport aircraft is required. I believe this development will, in all probability, follow this pattern: First, the conversion of existing commercial transports by the substitution of turbine-propeller engines; second, design modifi-

(Continued on page 69)

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CAA and CAB Releases

Copies of CAA releases may be obtained from the CAA Office of Aviation Information. CAB releases are obtainable from the Public Information Section of the Board.

Administration

CAA Requests Flight Plans for Northwest, Canadian Border Air Defense Areas—(April 28).

Hemphill Appointed Airports Deputy, CAA Announces—(April 29).

Aircraft Use Report Issued—(May 5).

Commerce-Interior to Develop Airports Near National Parks and Monuments—(May 8).

CAA Announces 1950 National Airport Plan—(May 11).

CAA Publishes Tabulation of State Aviation Laws—(May 17).

Joint British-CAA Technical Conference Convenes—(May 17).

Uncle Sam, Landlord, Has Choice of Tenants for New Airport Space—(May 22).

New CAA Approval System Offers Reduction in Regulations—(May 23).

Airport Use Committee Makes Report on Air Traffic in the Miami Area—(May 24).

More CAA Movies Available to Public—(May 24).

Statement by D. W. Rentzel, Administrator of Civil Aeronautics, before Senate Interstate and Foreign Commerce Committee, entitled "Development of Prototype Transport Aircraft," May 8.

Board

American Flag Air Carriers Achieve World Safety and Airlift Record—(CAB 50-26) April 28.

Reports of 16 Domestic Trunk Airlines for Fourth Quarter of 1949—(CAB 50-27) May 15.

CAB Authorizes Special Summer Group Flights to Europe—(CAB 50-28) May 20.

Manual Gives ANC Procedures

A recently revised edition of a manual of air traffic control procedures, entitled "ANC Procedures for the Control of Air Traffic," applying alike to Air Force, Navy, and civil air traffic, is now available from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., for 40 cents.

Summer Group Flights To Europe Authorized By Special Exemption

The Civil Aeronautics Board last month authorized by special exemption approximately 80 flights between the United States and Europe with 4-engine aircraft, carrying educational, religious or charitable groups only, between June 1 and September 30, 1950.

Special exemption was issued to the Flying Tiger Line, Burbank, Calif., a certificated domestic air freight carrier; and Seaboard & Western Airlines, New York, N. Y., and Transocean Air Lines of Oakland, Calif., both large irregular air carriers.

The Board provided in its orders special safety provisions to assure the conduct of this transportation under the highest possible standards of safety. The Board set forth specific provisos as to weather minima, airport adequacy, navigational aids, communications and dispatch facilities.

The Board, in the further interest of safety, also limited its authorization to those air carriers which own or have exclusive use of 4-engine aircraft and have had adequate experience in the trans-Atlantic operation of 4-engine aircraft in the performance of over-water operations.

Transocean and Seaboard were authorized to conduct approximately 40 trips carrying members of certain specified groups found by the Board to be bona fide educational, charitable or religious organizations.

Nonprofit Organization Exempted.—The Board also issued to Youth Argosy, a nonprofit educational and cultural organization, a special exemption in conjunction with Seaboard, Flying Tiger, and Transocean, in order that Youth Argosy could arrange for approximately 40 trans-Atlantic round trips for certain of the groups sponsored by that organization.

The Board found that not all of the groups proposed by Youth Argosy, however, were considered to be bona fide educational, charitable, or religious groups within the Board's definition. Consequently, the authorization of Youth Argosy contemplates that it select from its list such groups as American Friends Service Committee, Association of Mennonites and Affiliated Colleges, and Summer Term in France, Brooklyn College. The Board said that Youth Argosy will make arrangements for the flights with any or all of the three carriers authorized by the Board to conduct the temporary trans-Atlantic summer operations, and the Board will allow Youth Argosy to fill any remaining space in the 40 flights with individuals who are bona fide members of Youth Argosy.

State Laws on Aviation Are Tabulated by CAA

A complete tabulation of State laws affecting civil aviation throughout the United States, as well as Alaska, Hawaii, and Puerto Rico, has been compiled in easy reference wall-chart form by the Civil Aeronautics Administration on the basis of data assembled by the National Association of State Aviation Officials.

Covering a wide variety of general categories, the chart is about 20 by 30 inches in size, and provides information as to the status of laws as of March 1, 1950. In addition to the tabular information given on the face of the chart, there are 155 explanatory footnotes, keyed to reference numbers on the chart itself, on the reverse of the sheet.

While the chart will not be given general distribution, it will be mailed on request to pilots, airport

16 Domestic Trunk Lines Report Net Income Drop

Reports filed by the 16 domestic trunk airlines for the fourth quarter of 1949 indicate a net income from operations of \$99,996, as compared with net operating income of \$10,300,544 for the same period in 1948, the Civil Aeronautics Board has announced.

Additional figures covering operating revenues and expenses for the fourth quarter ending December 31, 1949, and for the fourth quarter ending December 31, 1948, follow:

Fourth Quarter Revenue and Expenses 1949-1948

	3 months ending—	
	Dec. 31, 1949	Dec. 31, 1948
Revenue miles flown.....	80,167,307	79,328,506
Operating revenue:		
Passenger.....	\$88,749,490	\$85,654,959
Mail.....	12,003,934	22,439,498
Express.....	2,827,241	3,005,302
Freight.....	5,506,832	4,299,126
All other.....	2,856,075	2,019,763
Total.....	111,943,572	117,418,648
Operating expenses.....	111,843,576	107,118,104
Net operating income.....	99,996	10,300,544

For the year ending December 31, 1949, the net operating income for the 16 domestic trunk airlines was \$24,625,337, as compared with net operating income of \$2,075,112 for the year ending December 31, 1948. Additional figures covering operating revenues and expenses for the years ending December 31, 1949, and December 31, 1948, follow:

Revenue and Expenses 1949-1948

	12 months ending—	
	Dec. 31, 1949	Dec. 31, 1948
Revenue miles flown.....	329,923,623	325,015,047
Operating revenue:		
Passenger.....	\$378,113,442	\$334,735,598
Mail.....	45,031,008	47,837,531
Express.....	8,957,243	9,964,037
Freight.....	18,823,325	13,824,531
All other.....	9,357,525	6,991,191
Total.....	459,782,543	413,352,888
Operating expenses.....	435,157,206	411,277,776
Net operating income.....	24,625,337	2,075,112

Data on Financial Statements Given

Airport Financial Statements, designed as a guide for airport accountants and those dealing with airport finances, is on sale by the Superintendent of Documents, Government Printing Office, Washington 25, D. C., at 15 cents.

operators, and others interested in State regulation and development of civil aviation.

Information on State laws is broken down into three broad classifications, the largest of which is "fostering and regulation" of civil aviation. Others are "airport development" and "fuel taxes."

More specific categories under these headings include the type of State aviation agency in operation; administrative costs; laws for fostering aviation; whether State registration or license is required; legislation governing flight; violation enforcement and enforcing officers; accident investigation; authority to construct, operate, and maintain airports; State and Federal aid to airports; airport zoning; and other classes of laws.

Business Flying Gains Show Utility of Plane, Forum Told by Nyrop

Business flying, growing faster than any other type of non-air-carrier aviation, is helping to prove that the airplane can be a vehicle of real utility, Donald W. Nyrop, Deputy Administrator of Civil Aeronautics, told the annual forum of the Corporation Aircraft Owners Association in Washington last month.

"In our studies of aircraft use during 1946, 1947, and 1948, we have found business flying chalking up an increase of more than 141 percent, as compared with an increase of less than 55 percent for all types of flying (except scheduled air carrier)," he said.

"In 1940 pleasure flying accounted for three times as many hours of aircraft use as business flying, but in 1948 business flying just about matched pleasure flying. If this trend continued into 1949, we can expect the survey now under way to show that business use of the airplane may approach and possibly surpass the volume of personal flying."

Responsibility Increased.—The increased importance of business flying, he added, carries with it an increased responsibility.

"The safety record of private flying to date is, to be frank, a poor one," Mr. Nyrop continued. "In 1948, for example, there were 850 fatal accidents in non-air-carrier flying. That means 1 out of every 100 private planes had a fatal crack-up during the year.

"If we analyze the causes of these accidents, however, we find that there is nothing inherently unsafe about private airplanes. In plain language, the fault lies with the large number of apparently irresponsible characters who fly some of them. I am hopeful that as increasing numbers of mature businessmen enter the ranks of private flyers, the record will improve sharply.

"The human element, good old pilot error, brought about 90 percent of the 850 fatal accidents in 1948, according to a Civil Aeronautics Board report. The Board uses the harsh words 'operating recklessly' to characterize 41 percent of all these accidents. Another 15 percent occurred when a pilot continued on visual flight rules into instrument weather, which in my book is also reckless flying. With ample weather information available from CAA communications stations both before and during flight, there is little excuse for the pilot to fly into weather trouble."

Stalls Take Toll.—"A third significant cause of accidents was 'failure to maintain flying speed,' which was directly accountable for more than 18 percent of these disasters," Mr. Nyrop continued. "This is just another way of saying 'stalls,' which were involved in 60 percent of the three types of accidents I have mentioned. Now that stall warning indicators have been available for several years, there is less reason than ever to get into this dangerous situation.

"I am sure that you corporation executives, who know the dollars and cents importance of promoting safety in your own businesses, will be increasingly important factors in spreading the safety gospel wherever you fly. We are counting on you not only to set a good example in your own flying, for obvious selfish reasons, but to campaign actively for a better safety record, which, incidentally should pay off in lower insurance rates."

Mr. Nyrop also discussed the application of business principles to the operations of the CAA to increase efficiency and effect economies.

Accident Reports Civil Aeronautics Board

Plane Crash Landed.—The probable cause of an accident when an American Airlines plane crash landed near the Memphis Municipal Airport June 22, 1949, was "a reduction in air speed resulting from flying the aircraft at a steep climbing attitude after power failure in the right engine, followed by retraction of the flaps which destroyed the aircraft's climb performance," the Board found.

Although the plane was extensively damaged, no fatalities resulted. Thirteen of the 41 passengers and 1 crew member were seriously injured. Eighteen passengers and two crew members received minor injuries.

The plane was taking off to continue a flight to Washington, D. C., and intermediate points. At an altitude from 20 to 50 feet, the right engine failed, the Board's report said. The left engine continued to develop full take-off power and the plane continued straight ahead, gaining altitude very slowly, flying towards a power line located across the flight's course at an altitude of 75 feet.

Just before the plane passed over the wires, which were cleared by 10 to 20 feet, flaps were slowly but full retracted from the take-off position of 16 degrees, the CAB report said. After the aircraft crossed above the wires, the air speed fell from 110 to 105 miles an hour, and the plane was unable to hold altitude. A shallow right turn was made to relatively clear terrain, where the aircraft was crash landed.

"Since the left engine developed full take-off power continuously during take-off and climb, it must be concluded that the drop in air speed resulted from flying the aircraft in a too steep climbing attitude, due to the mental hazard imposed on the pilots as the aircraft rapidly approached the power lines across the flight path," the Board said.

"Failure of the right engine resulted from failure of the impeller shaft thrust bearing which caused a flow of fuel into the induction system of the right engine to be interrupted," the Board added.

Crashed on Take-Off.—An attempt to take off with the propeller set in the cruise position was given as the probable cause of an accident May 11, 1949, at Clarksburg, W. Va., when an All American Airways plane was destroyed and the two occupants killed.

The plane was on an air-mail pick-up flight under visual flight rules from Pittsburgh, Pa., to Huntington, W. Va., and landed on Clarksburg to discharge cargo. The cargo destined for Clarksburg was unloaded without stopping the engine and the captain remained in the pilot's seat.

Immediately after takeoff, a right turn was made toward rising terrain, contrary to safe operating procedures, the Board's accident report stated. The turn was steepened to approximately a 45-degree bank to avoid higher terrain, following which the pilot lost control and the aircraft crashed in a near vertical attitude.

The take-off was made with the propeller control setting in the cruise position and the propeller governor was found to be set at 2,000 r. p. m. At 2,000 r. p. m. setting the engine was not producing rated take-off power, the Board said. The Board determined "that the probable cause of this accident was the pilot's action in making a take-off with the propeller set in cruise position, which precipitated a stall and loss of control of the aircraft while executing a steep right turn to avoid high terrain."

Flew Off Designated Airway.—Action of the pilot in proceeding off the designated airway at an altitude insufficient to clear the terrain was given by the CAB as the probable cause of the accident near Homer, Alaska, January 20, 1949, in which five or six occupants of an Alaska Airlines aircraft were killed.

The plane was on a flight from Nakenk, Alaska, to

Anchorage, via Homer and Kenai. An instrument flight plan was filed as required by the carrier's operating certificate. En route, the flight advised by radio that from Homer to Anchorage the flight would be in accordance with visual flight rules.

Fifteen minutes after departing Homer, the plane struck the south side of Ptarmigan Head at an elevation of 2,800 feet, 9 miles east of the center line of the airway to Kenai. At the time, the air was clear, stable, and dry.

The Board said no difficulties were found in the mechanical operation of the airplane or in the operation of radio facilities.

"If the flight had been proceeding according to instrument flight rules, the accident probably would not have occurred, since the flight would have been via the airways over a sea level route and at a minimum altitude of 4,000 feet," the Board said.

Air Collision Fatal.—Failure of the pilots of an airliner to observe and avoid a personal aircraft was given by the Board as the probable cause of an air collision near Maitland Lake Front Airport, Milwaukee, August 7, 1949, in which Arthur Rapps, pilot of the private plane, was killed. Occupants of the airliner escaped injury but the aircraft was substantially damaged.

The collision was between a Capital Airlines plane flying into Milwaukee and a personal aircraft which had taken off from Maitland Airport 9 minutes before the accident.

The airliner was descending in a shallow left turn while crossing Maitland Airport at an altitude of 1,200 to 1,500 feet above the ground. The personal plane was executing a climbing left turn and was ahead and to the right of the airliner. The weather was clear and the visibility was 15 miles.

Rapps' vision was obstructed by the left wing of his aircraft throughout the left turn immediately prior to the collision, the Board said, and he could not see the other plane.

Improper Approach Made.—"Improper execution of an instrument approach which resulted in the aircraft being flown to the right of the proper approach path at an altitude too low to clear the terrain" was given by the Board as the probable cause of a fatal accident near Akron-Canton Airport, Akron, Ohio, November 4, 1949.

The aircraft, owned and operated by Harrington's, Inc., was destroyed when it crashed 3,250 feet south and 880 feet east of the runway. The crew of three, only occupants of the plane, were killed.

The Board found no evidence of mechanical malfunctioning of the aircraft and said that airborne and ground radio facilities were operating normally at the time of the accident. A light, wet snow was falling but the weather was above authorized minimums.

The plane had departed from Philadelphia for Cleveland but over Youngstown, Ohio, the destination was changed to Akron because Cleveland weather was below the authorized landing minimums.

Descended Below Minimum.—Action of the pilot "in descending below the prescribed minimum altitude while executing an instrument approach" was given by the Board as the probable cause of an accident near Chatsworth, Calif., July 12, 1949, when a Standard Airlines plane struck the side of a mountain obscured by clouds. Of the 48 occupants, 35 were killed and 13 seriously injured.

The Board said that just before starting, or during a procedure turn preparatory to letting down to Burbank Airport, the flight descended approximately 1,000 feet below the prescribed minimum altitude for

the prevailing weather conditions. Pilots of other aircraft in the vicinity said that there was a cloud layer just high enough to cover the top of the mountain which the aircraft struck.

One possible reason advanced by the Board for the pilot's action in going below the prescribed altitude was that he may have believed the cloud layer would not last, as it was dissipating rapidly and disappeared a few minutes after the accident. It also was suggested that he might have descended through a hole in the cloud layer and that once in that hole he was unable to maintain visual reference, and reverting to instrument flight at too low a level, struck the mountainside.

No evidence of any malfunctioning of the aircraft or its powerplants, or of the radio facilities in the Burbank area, was found by the Board.

Approximately 40 minutes before the crash two male passengers engaged in an altercation in which one blow was struck. The two men were separated by a stewardess, who notified the captain. The captain came aft, talked with the men, and returned to the cockpit. He did not again leave the cockpit. The Board said that the possibility that worry over this incident caused the captain to make a premature descent is "remote."

Civil Aircraft Shipments Decline in Number and Value

March shipments of civil aircraft amounted to 326 planes, weighing 394,600 airframe pounds, according to a report issued jointly by the Civil Aeronautics Administration and the Bureau of the Census, Department of Commerce. The industry's total value of shipments—complete aircraft, spare parts, and all other products—was \$10,752,000. Comparable figures for a year ago were 400 planes, 716,600 airframe pounds, and \$16,203,000.

Detailed figures for March 1950 civil aircraft shipments follow:

Civil Aircraft Shipments, March 1950

	1950		1949
	March	February	March
Number (total).....	326	225	400
Number by type:			
Personal.....	322	217	377
Transport.....	4	8	23
Number by place:			
1- and 2-place.....	98	57	112
3- to 5-place.....	224	160	265
Over 5-place.....	4	8	23
Airframe weight (thousand lbs.):			
Personal.....	242.1	162.0	289.5
Transport.....	152.5	234.4	427.1
Value (thousand dollars):	\$10,752	\$12,467	\$16,203
Complete aircraft.....	5,731	7,911	11,464
Parts.....	3,037	2,812	2,697
Other products, including conversions.....	1,984	1,744	2,042

A review of civil aircraft shipments in the first quarter of this year shows a 12-percent decline in number but only a 6-percent drop in dollar value.

Civil Aircraft Shipments, First Quarter, 1950-1949

	1950	1949	Percent increase or (decrease)
Number of aircraft.....	718	817	(12)
Value (thousand dollars):			
Complete aircraft.....	\$25,745	\$26,597	(3)
Parts.....	8,348	10,140	(18)
Other products.....	5,482	5,545	(1)
Total.....	39,575	42,192	(6)

Uncle Sam Has Problem In Selection of Tenants For New WNA Building

Uncle Sam, in his role as landlord at Washington National Airport, has more applications for space than he has space available in the new extension of the administration-terminal building. His chief rental problem now is picking his tenants.

When the extension is completed, possibly by December 1, Bennett H. Griffin, director of the airport for the Civil Aeronautics Administration, will have more than 5,000 additional square feet available to rent to new concessionnaires.

His problem is not how to rent that space, but to whom it shall be rented. All proposed concessions are being weighed on the scales of their "service to the public," and contracts will not be finally signed until the airport management has determined which of the applicants will be prepared to render the services most needed by the tens of thousands who travel by air to and from Washington, the even greater number of airport visitors, and the thousands who work there.

Additional Proposals Acceptable.—Although proposals for use of the space exceed the area to be made available, more proposals are still acceptable, Director Griffin said, as few definite commitments have been made for any of the new area, and new applicants may be found to offer goods or services more in line with the needs of airport purchasers than those now on file.

The two major additions to the array of concessionnaires now in the terminal building will be a branch bank and a drug store, both to be located in the extension. Also under consideration as additional services are valet, beauty shop, men's and women's wear shops, a candy store, a game room, and a private dining room for parties, luncheons and dinners, to be operated by Air Terminal Services, Inc., current operator of the terrace room and coffee shop.

Some Get Larger Space.—Some of the existing concessions will move to larger spaces, with the addition of more rentable space, among them the book and philatelic store, jewelry store, barber shop, news stand, and possibly some others.

In all, 11 new commercial spaces are to be added to the terminal building.

Also, with construction of the new wing, temporary airline offices now lining the north and south concourses will be moved into permanent quarters and the temporary partitions in the concourses removed, making room for more passenger waiting room space in the lobby.

The extension will add 61,000 square feet of space to the existing 111,000 square feet in the terminal building. While the target date for completion of the building is December 31, Mr. Griffin expressed the belief that, if the work continues at its present pace, completion may be as much as a month ahead of this date.

Data on Plane Operation Given

Facts of Flight, which provides practical information about the operation of private aircraft, is on sale by the Superintendent of Documents, Government Printing Office, Washington 25, D. C., for 50 cents. The 41-page booklet, illustrated in color, has chapters on airplane flight, stalls, spins, airplane structure, airplane engines, flying the plane, airport traffic, sea-planes, and safety in flight.

Civil Aviation Highlights

	1950	1949
Airports recorded with CAA, May 1...		
By type:		
Commercial.....	2,518	2,823
Municipal.....	2,222	2,150
CAA Intermediate.....	992	154
Military.....	134	389
All others.....	1,264	905
Civil airports, by class:		
Total.....	6,138	6,032
Class I and under.....	4,048	3,981
Class II.....	992	1,002
Class III.....	505	483
Class IV.....	374	361
Class V.....	137	130
Class VI and over.....	82	75
Total U. S. civil aircraft, May 1.....	92,535	93,693
Scheduled air-carrier aircraft, May 1.....	1,142	1,050
Civil aircraft production, March:		
Total.....	326	400
1- and 2-place models.....	98	112
3-, 4-, and 5-place models.....	224	265
Over 5-place models.....	4	23
Certificates approved, March:		
Student pilots.....	3,318	3,718
Private pilots.....	1,978	2,349
Commercial pilots.....	444	615
Airline transport pilots.....	60	116
Mechanics (original certificates).....	751	611
Ground instructors (original certificates).....	148	189
Flight instructor ratings.....	144	206
Instrument ratings.....	112	137
Control-tower operators.....	65	136
Traffic-control activity, March:		
Aircraft operations, CAA airport towers.....	1,246,397	1,413,579
Fix postings, CAA airway centers.....	966,302	902,278
Instrument approaches, CAA approach-control towers.....	22,813	23,755
Airport Operations		
Washington National, April:		
Scheduled air carrier:		
Passengers departing.....	67,599	65,904
Passengers arriving.....	67,231	64,576
Aircraft arrivals and departures.....	9,601	11,296
Other aircraft arrivals and departures.....	2,878	4,572
San Francisco Municipal, March:		
Scheduled air carrier:		
Passengers departing.....	40,839	36,311
Passengers arriving.....	40,518	37,102
Aircraft arrivals and departures.....	6,409	5,696
Other aircraft arrivals and departures.....	3,581	4,521
Oakland Municipal, March:		
Scheduled air carrier:		
Passengers departing.....	4,014	5,149
Passengers arriving.....	3,791	4,531
Aircraft arrivals and departures.....	4,422	4,039
Other aircraft arrivals and departures.....	13,759	19,977
Miami International, March:		
Scheduled air carrier:		
Passengers departing.....	83,006	59,772
Passengers arriving.....	78,982	56,277
Aircraft arrivals and departures.....	10,056	8,113
Other aircraft arrivals and departures.....	11,944	11,228
Los Angeles International, March:		
Scheduled air carrier:		
Passengers departing.....	44,714	(?)
Passengers arriving.....	43,178	(?)
Aircraft arrivals and departures.....	8,379	7,873
Other aircraft arrivals and departures.....	6,704	8,258

¹ Airport type definitions: Commercial—Public use and public services, privately owned and operated. Municipal—Public use and public services, municipally owned and/or operated. CAA Intermediate—Public emergency use, no services, CAA operated. Military—Public restricted, military operated. All others—(a) Public emergency use only, no public services, privately owned for personal use; (b) Public emergency use only, no public services. Government-owned Forest Service, etc.

² Not available.

Specifications for Airports Given in CAA Publication

"Standard Specifications for Construction of Airports" is the title of a Civil Aeronautics Administration publication which contains specification items for the construction of airports and air parks in the United States, its territories, and possessions.

This publication is on sale at \$2 a copy by the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

Careful Planning Vital To Future of Airport, Conference Group Told

Airport planning is an extremely important and complicated subject, Phillips Moore, Director of the Civil Aeronautics Administration's Office of Airports, told the National Citizens Conference in an address last month in Washington.

"It is important," Mr. Moore continued, "in that the entire future of the proposed airport depends on careful planning and it is complicated by the fact that it involves so many diversified factors, any one of which, if not given proper consideration, also could affect the successful operation of the airport."

"With air transportation offering a well established and fast means of travel and for the shipment of commodities, it is essential that communities around the country provide for airports in their over-all planning. It is not enough that a city just decide to build an airport—it must incorporate airport development into its comprehensive plan along with its other public works."

Three Steps Involved.—Three separate and distinct steps involved in the development of an airport were outlined. They were given as planning, construction, and operation.

"Of the three steps, those of planning and operation are so interrelated that it is next to impossible to discuss one without reference to the other," Mr. Moore said. "In the planning of an airport the over-all economics of air transportation must be considered and in turn applied to the community involved."

"In this respect several important questions present themselves, as follows, to airport planners: 1. Shall there be an airport? 2. What kind of an airport is required, and what will it cost? 3. What type and size of aircraft can safely and reliably use the airport? 4. What capacity must the airport have from the standpoint of accommodating the peak-hour traffic load, and the activities incidental to it? 5. What facilities must the airport have for expeditious flow and safety of traffic, for convenience of passengers, protection of commodities, and for capitalizing on sources of potential revenue? 6. What will it cost to operate and maintain the airport, its plant and structures? 7. What are the sources of revenue from air transportation in itself and how much revenue can logically be derived within the ability of the users (both the operators and the customers) to pay? 8. What are the sources of nonaviation revenue that may be derived and how much money will they bring in? 9. What is the value of the operation of the airport to the community and its citizens aside from the aeronautical and nonaeronautical revenue that will be reflected in the airport's financial statements?"

Factors To Be Considered.—Some of the answers to these questions will be found within the community, Mr. Moore said, while answers to others will be found by looking into the economics of air transportation itself. On the part of the community, population, wealth, the trade area, business characteristics, markets, and future business potentials are the factors which will determine the community's need for an airport, he said.

It first must be decided what type of airport, from the aeronautical point of view, should be constructed, he continued. He pointed out that the CAA classifies airports as follows: Intercontinental express, intercontinental, continental, express, trunk line, feeder, secondary, and personal.

Official Actions Civil Aeronautics Board

Regulations

Amdt. 61-2-----Effective June 5, 1950

Amends Part 61 of the Civil Air Regulations, so as to set forth ceiling minima for alternate airports equipped with ILS or GCA.

Safety Orders

S-329 suspends for 60 days, pilot certificate of G. J. Douglas (Apr. 10).

S-330 suspends for 6 months, pilot certificate of Victor Debbes Sannett (Apr. 26).

S-331 grants Dale A. Partee, exemption from the provisions of paragraph (f) (g) and (h) of § 22.13 of the Civil Air Regulations, so as to permit him to pilot a hot-air balloon, subject to certain provisions (Apr. 27).

S-332 denies request of Albert Paul Mantz for oral argument in his appeal from an examiner's initial decision (May 11).

Revocations

Commercial pilot certificate of Lester Otho Graham, Zanesville, Ohio, revoked, for piloting an aircraft between Gallatin, Mo., and Cameron, Mo., while he was under the influence of intoxicating liquor, and with a passenger also under the influence of intoxicating liquor, and for performing acrobatics when neither he nor his passenger was equipped with a parachute.

Student pilot certificate of Ivan Martin Fox, New Holland, Pa., revoked, for carrying a passenger and for piloting an aircraft in furtherance of a business.

Private pilot certificate of Alvin J. Erven, Grand Rapids, Minn., revoked, for piloting an aircraft while he was under the influence of intoxicating liquor.

Commercial pilot certificate of Robert W. Duncan, Marion, Ill., revoked, for engaging in acrobatic flight at low altitude at Benton Airport, Benton, Ill., and for failure to conform to the traffic pattern at the airport.

Private pilot certificate of Charles W. Wall, Winder, Ga., revoked, for low flying.

Private pilot certificate of Harry Davis, Salt Lake City, Utah, revoked, for low flying over a congested area of Riverton, Utah.

Student pilot certificate of Carmel H. Huggins, Pensacola, Fla., revoked, for low flying in the vicinity of Bayou Field and for failure to conform to the traffic pattern at Bayou Field.

Student pilot certificate of James Kelly Buckley, Tipton, Calif., revoked, for low flying over Cornelius, N. C.

Private pilot certificate of Paul R. Coblick, Lock Haven, Pa., revoked, for piloting an aircraft, carrying a passenger, when the aircraft had not been test flown after undergoing repairs or alterations and when the aircraft had not been inspected within the preceding 12 months, for performing repairs and alterations to the aircraft although he was not properly qualified to do so, and for failure to have a medical certificate in his possession. The aircraft was demolished in a crash but the occupants escaped without injuries.

Private pilot certificate of Robert Dennis Claxton, Butte, Mont., revoked, for low flying, carrying a passenger, over Three Forks, Mont.

Private pilot certificate of William Arthur Bourque, Springfield, Mass., revoked, for "buzzing" a congested area of Agawam, Mass., and for performing acrobatics within a civil airway.

Private pilot certificate of Carmen Bonacci, Omaha, Neb., revoked, for low flying over Omaha, for performing acrobatics over a congested area of Omaha, and for failure to have a valid medical certificate in his possession.

Student pilot certificate of Harold E. Loller, Richmond, Calif., revoked, for carrying a passenger and for failing to conform to the traffic pattern at the Sacramento Airport.

Student pilot certificate of Keith M. Olsen, Murray, Utah, revoked, for carrying a passenger and for performing acrobatics over a congested area of Murray.

Private pilot certificate of Ward Marion Blakeslee, Filer, Idaho, revoked, for "buzzing" automobiles along a public highway and for low flying over boats on the Snake River.

Private pilot certificate of Richard F. Lathrop, Spokane, Wash., revoked, for low flying and performing dives at low altitude over a congested area.

Student pilot certificate of Adrath O. Wheeler, North Little Rock, Ark., revoked, for carrying a passenger and for flying at an altitude so low that the left wing of the aircraft he was piloting struck a power line.

Private pilot certificate of Clarence A. Ross, Marion, N. C., revoked, for piloting an aircraft while he was under the influence of intoxicating liquor and for piloting an aircraft between sunset and sunrise when the aircraft did not display navigation lights.

Private pilot certificate of Joe Gaither Meyers, Elkin, N. C., revoked, for low flying over and along a public highway, at an altitude low enough to strike and damage an automobile.

Private pilot certificate of Harry Eugene Yeatman, Memphis, Tenn., revoked, for low flying, with a passenger, over a congested area of Starkville, Miss., at such a low altitude that the aircraft struck a tree and was slightly damaged.

Student pilot certificate of Paul Bryant Lee, Chattanooga, Tenn., revoked, for carrying passengers and for performing acrobatics over a congested area.

Private pilot certificate of Arthur W. Williams, Jr., Springhill, Ala., revoked, for low flying over a vessel on Mobile Bay and for failing to conform to the traffic pattern at Mobile Municipal Airport.

Commercial pilot certificate of John Weldon McCandless, Alvin, Tex., revoked, for flying an aircraft at night in the vicinity of a busy airport without position lights, for landing at night without lights at Houston Municipal Airport, and for giving misleading information to two traffic control operators concerning his identity.

Student pilot certificate of James Edwin Hurrett, Fort Sam Houston, Tex., revoked, for piloting an aircraft which was not in an airworthy condition and which had not been given an annual inspection within the preceding 12 months.

Commercial pilot certificate of Wyman E. Holt, Crystal City, Mo., revoked, for failing to surrender his pilot certificate to the Administrator after the certificate had been suspended for a period of 10 months by an initial decision of a CAB examiner issued July 29, 1949.

Suspensions

Commercial pilot certificate of Peter L. Baity, La Plata, Mo., suspended 15 days from November 26, 1949, for low flying over Lincoln, Ill.

Private pilot certificate of Leo Paul Meyette, Williamstown, Vt., suspended 6 months from February 8, 1950, for careless and reckless operation of an aircraft by landing with a passenger in a field which was rough and uneven, resulting in damage to the aircraft, and for failing to make a true written report of the accident.

Student pilot certificate of James F. Moore, Lewes, Del., suspended 6 months from February 8, 1950, for flying outside the local flight area designated by his instructor and when his certificate had not been properly endorsed. He became lost, ran out of fuel, and crashed, resulting in major damage to the aircraft.

Commercial pilot certificate of W. E. Roff, Riverside, Calif., suspended 30 days from February 8, 1950, for operating an aircraft in such close proximity to another aircraft as to create a collision hazard, and for entering the traffic pattern and landing at Long Beach Municipal Airport without obtaining clearance from air traffic control.

Temporary private pilot certificate of William B. Fausett, Wallace, Idaho, suspended 90 days from February 21, 1950, for low flying and for executing unnecessary maneuvers at low altitude over Silvertown, Idaho.

Private pilot certificate of Roy E. Thomas, Robertsdale, Ala., suspended 4 months from February 28, 1950, for low flying over a congested area of Foley, Ala.

Private pilot certificate of James Houston Perry, Bastrop, La., suspended 60 days from March 3, 1950, for operating an aircraft into the control zone at Hawkins Field, Jackson, Miss., when the ceiling was below 1,000 feet without air-traffic-control authorization, and for operating an aircraft contrary to air-traffic-control instructions.

Private pilot certificate of John Myrick Bradshaw, Columbia, S. C., suspended 4 months from March 4, 1950, for performing acrobatics over a congested area, and for failing to observe other traffic over and in the vicinity of Owens Field, Columbia, resulting in a collision with another aircraft on a runway.

Private pilot certificate of James J. Courtney, Jr., Duluth, Minn., suspended 30 days from February 7, 1950, for failure to have a medical certificate in his possession.

Private pilot certificate of Harry C. Beverage, Clarkburg, W. Va., suspended 6 months from October 18, 1949, for low flying in the vicinity of Fairmont, W. Va. While circling a baseball field, he struck a power line but was able to return to the airport and make a safe landing.

Temporary private pilot certificate of Walter J. Hester, Raleigh, N. C., suspended 6 months from February 7, 1950, for low flying over a congested area of Raleigh.

Private pilot certificate of Douglas C. Rhinehart, Beaumont, Tex., suspended 90 days from January 26, 1950, for operating an aircraft which was not in an airworthy condition and which had not been given an annual inspection within the preceding 12 months. The aircraft was wrecked in an accident resulting from a clogged fuel line.

Student pilot certificate of John Childress Tune, Nashville, Tenn., suspended 6 months from February 20, 1950, for low flying over a congested area of Nashville.

Private pilot certificate of Walter Aron, Tucson, Ariz., suspended 4 months from February 3, 1950, for low flying and performing acrobatic maneuvers at an altitude of less than 1,500 feet over a congested area.

Commercial pilot certificate of James E. Petsche, Bisbee, Ariz., suspended 6 months from February 10, 1950, for low flying and performing acrobatics over a crowd congregated around a baseball diamond.

Private pilot certificate of James D. Melvin, Burbank, Calif., suspended 60 days from January 23, 1950, for piloting a civil aircraft for hire.

Private pilot certificate of H. C. Peterson, Ridgecrest, Calif., suspended 30 days from February 16, 1950, for permitting his aircraft to be operated when the aircraft had not been given an annual inspection within the preceding 12 months.

Private pilot certificate of Robert LeRoy Johnson, Armona, Calif., suspended 90 days from February 7, 1950, for piloting an aircraft on a cross-country flight during the hours of darkness when the aircraft was not equipped for night flying. While attempting to land on the unlighted Hanford Municipal Airport during darkness, he crashed into a building, resulting in damage to the aircraft and injuries to both occupants.

Private pilot certificate of Leroy Walter McGee, Helena, Mont., suspended 90 days from February 23, 1950, for low flying.

Private pilot certificate of Lawrence D. Morris, Hill City, Kans., suspended 45 days from January 11, 1950, for operating an aircraft at an airspeed and in an attitude which permitted the plane to stall and crash while he was hunting coyotes. The plane was damaged beyond repair but both occupants escaped without injury.

Private pilot certificate of Kenneth M. Storey, St. Simons Island, Ga., suspended 6 months from February 13, 1950, for carrying two passengers in a seat designed for one person on a flight which ended when the plane fell into the ocean, resulting in injuries to the pilot and one of the two passengers.

Private pilot certificate of Harris Gibson Fletcher, Georgetown, S. C., suspended 3 months from February 11, 1950, for piloting an aircraft between the hours of sunset and sunrise without displaying position lights.

Student pilot certificate of Jack Allen Upchurch, Kingsport, Tenn., suspended 60 days from February 25, 1950, for operating an aircraft, on two occasions, between sunset and sunrise when no position lights were displayed.

Commercial pilot certificate of James H. Blackley, Ocala, Fla., suspended 90 days from February 21, 1950, for low flying over a congested area.

Commercial pilot certificate of Marvin D. McCrary, Mobile, Ala., suspended 15 days from February 11, 1950, for low flying.

Student pilot certificate of Donald A. Payne, Nashville, Tenn., suspended 30 days from February 3, 1950, for low flying.

Private pilot certificate of David C. Dreher, Miami, Fla., suspended 4 months from February 13, 1950, for low flying over a congested area with a passenger.

Private pilot certificate of Richard W. Ilgen, Pensacola, Fla., suspended 30 days from February 6, 1950, for failing to maintain contact with air-traffic control, for operating an aircraft contrary

to air-traffic-control instructions, and for operating an aircraft in such proximity to another aircraft so as to create a collision hazard.

Private pilot certificate of Joseph Kearney Ball, Jr., Louisburg, N. C., suspended 60 days from April 1, for performing acrobatics within a civil airway and in the control zone of the Raleigh-Durham Airport.

Private pilot certificate of James M. Loveday, Knoxville, Tenn., suspended 30 days from March 16, for operating an aircraft in the control zone of the Knoxville Municipal Airport without authorization from air-traffic-control when the ceiling was below that authorized for contact flight and for operating an aircraft without having familiarized himself with current weather reports prior to commencing his flight.

Private pilot certificate of Annette Cranford, Madeira Beach, Fla., suspended 30 days from February 15, for low flying over a congested area.

Private pilot certificate of Norman G. Rose, Columbus, Ohio, suspended 6 months from March 31, for performing acrobatics near the intersection of three civil airways and at an altitude of between approximately 1,000 and 500 feet above the surface of the ground, with a passenger, on a flight which ended in a crash.

Private pilot certificate of Clyde M. Pool, Kansas City, Mo., suspended 6 months from March 14, for giving flight instruction for hire.

Commercial pilot certificate of Walter Findley, Pueblo, Colo., suspended 30 days from March 10, for operating an aircraft in the vicinity of and landing at Pueblo Municipal Airport during the hours of darkness when the aircraft did not display position lights.

Commercial pilot certificate of Ivan Harrison Timmons, East Prairie, Mo., suspended 90 days from March 14, for failing to conform to the traffic pattern prescribed for the Municipal Airport at Paducah, Ky., causing a scheduled airliner to stop a take-off run.

Private pilot certificate of Kenneth C. Stribling, Casper, Wyo., suspended 30 days from March 15, for failing to give adequate attention to his piloting, resulting in a collision with power lines in which the aircraft was damaged.

Airline Orders

E-3979 extends until June 17, 1950, the period of suspension and investigation in the matter of joint circle trip fares and routings proposed by certain airlines (Mar. 13).

E-3980 extends for an additional 90 days the period of suspension and investigation in the matter of certain fares and provisions proposed by Chicago and Southern Air Lines (Mar. 14).

E-3981 approves agreements between Air Cargo, Inc., and various other parties and various other air carriers and other carriers, relating to pick-up and delivery services as set forth in an attached appendix A (Mar. 15).

E-3982 approves agreements involving TWA and various other air carriers, foreign air carriers, and other carriers relating to interline traffic (Mar. 15).

E-3983 approves agreements involving American Overseas Airlines, various other air carriers, and other carriers, relating to intercompany arrangements as set forth in an attached appendix A (Mar. 15).

E-3984 orders Robinson Airlines Corp. to show cause why the Board should not fix a temporary mail rate for its route No. 94, pending the establishment of a final rate (Mar. 17).

E-3985 dismisses at its own request, application of the Pittsburgh Chamber of Commerce requesting that Pittsburgh, Pa., be designated as coterminal for North Atlantic air routes (Mar. 17).

E-3986 dismisses at its own request, application of the Air Charter Co. for an exemption under § 416 (b) (2) of the Act, since the company has been liquidated (Mar. 17).

E-3987 dismisses at its own request, application of Lines Aereas Nacionales for a foreign air carrier permit (Mar. 17).

E-3988 dismisses at its own request, applications of Brinckerhoff Flying Service for exemption under § 416 of the Act (Mar. 17).

E-3989 dismisses application of Aerovias Latino Americanas for a foreign air carrier permit, since the company has been liquidated (Mar. 17).

E-3990 dismisses at its own request, application of Wisconsin Central Airlines, for amendments to its certificates (Mar. 17).

E-3991 dismisses at its own request, applications of Pennsylvania-Central Airlines, now Capital Airlines, for certificates under § 401 of the Act (Mar. 17).

E-3992 terminates proceeding in the matter of the suspension and revocation of letter of registration No. 110 issued to Nats Air Transportation Service (Mar. 20).

E-3993 fixes a temporary mail rate for Colonial Airlines over its Bermuda routes (Mar. 21).

E-3994 institutes a proceeding for determining the mail rates for Monarch Air Lines over its entire system on and after April 1, 1950 (Mar. 21).

E-3995 grants Aerolineas Argentinas (FAMA) permission to inaugurate service at the terminal point New York, N. Y., between Argentina and the United States, through the use of New York International Airport, on or about March 22, 1950 (Mar. 21).

E-3996 denies motions of Trans American Airways, requesting that the Board sever the proceeding against it from that of other respondents therein, and dismiss portions of enforcement proceedings relative to Edward Ware Tabor in docket No. 3358 (Mar. 21).

E-3997 denies motions of Great Lakes Airlines, requesting that the Board dismiss and sever the proceeding against it from that of other respondents therein and for an immediate hearing (Mar. 21).

E-3998 denies motions of Edward Ware Tabor and Sky Coach Air Travel, Inc., requesting that the Board dismiss portions of the proceeding against them in the matter of alleged unauthorized operations (Mar. 21).

E-3999 denies motions of Eastern and National, requesting that the Board order the record in the matter of certain fares for the summer of 1950 certified to itself and render an immediate decision (Mar. 24).

E-4000 approves interlocking relationship existing as a result of a holding of certain positions by Laurence S. Rockefeller in Eastern Air Lines and Marquardt Aircraft Co. (Mar. 22).

E-4001 grants Trans-Canada Air Lines permission to inaugurate service at Tampa-Saint Petersburg, Fla., on its route between

(Continued on page 68)

Regulations of The Administrator

(Through May 31, 1950)

Note: Regulations of the Administrator marked with an asterisk (*) on the list given below may be obtained from the Superintendent of Documents, United States Government Printing Office, Washington 25, D. C., at the prices indicated. Remit check or money order, made payable to the Superintendent of Documents, directly to the Government Printing Office. Copies of amendments may be obtained free of charge from the Office of Aviation Information, CAA, Washington 25, D. C., or may be found in the Federal Register for the dates indicated in parentheses. Copies of the Federal Register are obtainable from the Superintendent of Documents.

Part 405—Procedure of the Civil Aeronautics Administration. (Published in the Federal Register, part II, section 2, July 16, 1949. 20¢.)

*Part 406—Rules of Practice Governing Proceedings to Alter, Amend, or Modify Certificates. (5¢.)

*Part 407—Seizure of Aircraft. (5¢.)

*Part 450—Inter-American Aviation Training Grants. (5¢.)

*Part 501—Aircraft Registration Certificates. (5¢.)

*Part 502—Dealers' Aircraft Registration Certificates. (5¢.)

*Part 503—Recordation of Aircraft Ownership. (5¢.)

*Part 504—Recordation of Encumbrances Against Specifically Identified Aircraft Engines. (5¢.)

*Part 505—Recordation of Encumbrances Against Aircraft Engines, Propellers, Appliances, or Spare Parts. (5¢.)

*Part 550—Federal Aid to Public Airports for Development of Public Airports. (10¢.)

Amendment 1. (Aug. 11, 1949.)

Amendment 2. (Sept. 1, 1949.)

Amendment 3. (Nov. 18, 1949.)

Amendment 4. (Jan. 18, 1950.)

Amendment 5. (March 11, 1950.)

Amendment 6. (Apr. 4, 1950.)

Amendment 7. (Apr. 8, 1950.)

*Part 555—Acquisition of Government-owned Lands for Public Airport Purposes. (5¢.)

*Part 560—Reimbursement for Damage to Public Airports by Federal Agencies. (10¢.)

Amendment 1. (Nov. 16, 1949.)

*Part 570—Rules of Washington National Airport. (5¢.)

Amendment 1. (Nov. 26, 1949.)

Part 575—Federal Civil Airports on Canton and Wake Islands. (Published in the Federal Register Apr. 22, 1950.)

*Part 600—Designation of Civil Airways (including amendments 1 through 18). (10¢.)

Amendment 19. (July 28, 1949.)

Amendment 20. (Sept. 30, 1949.)

Amendment 21. (Oct. 15, 1949.)

Amendment 22. (Nov. 18, 1949.)

Amendment 23. (Dec. 2, 1949.)

Amendment 24. (Jan. 7, 1950.)

Amendment 25. (Jan. 14, 1950.)

Amendment 26. (Feb. 7, 1950.)

Amendment 27. (March 31, 1950.)

Amendment 28. (May 30, 1950.)

*Part 601—Designation of Control Areas, Control Zones, and Reporting Points (including amendments 1 through 22). (15¢.)

Correction. (Nov. 17, 1949.)

Amendment 23. (July 28, 1949.)

Amendment 24. (Sept. 30, 1949.)

Amendment 25. (Oct. 15, 1949.)

Amendment 26. (Nov. 18, 1949.)

Amendment 27. (Dec. 2, 1949.)

Amendment 28. (Jan. 7, 1950.)

Amendment 29. (Jan. 14, 1950.)

Amendment 30. (Feb. 7, 1950.)

Amendment 31. (March 31, 1950.)

Amendment 32. (May 30, 1950.)

*Part 625—Notice of Construction or Alteration. (5¢.)

*Part 635—Reproduction and Dissemination of Current Examination Materials. (Available without charge on request to the Office of Aviation Information, CAA.)

Airport Turfing Information Provided in CAA Publication

A guide to airport owners and operators who are concerned with the many problems of turfing is available in the CAA booklet, "Airport Turfing."

The new publication summarizes a wealth of knowledge and experience gained over the past few years in the development of turf at both military and civilian airports, and through experimental work by other agencies of the Federal Government and States.

Covered in the publication are the factors in planning turfed fields, the soils in the various sections of the country, grading and draining, types of grasses used at airports, planting methods, maintenance of turfed areas, and other related subjects.

A table of preferred planting practices is carried, showing the method and recommended seeding time, data on depth of seeding, and the pound rate of seed per acre in the various climatic zones of the country.

"Airport Turfing" is available from the United States Government Printing Office, Washington 25, D. C., at 25 cents a copy.

Civil Aeronautics Manuals and Supplements, on June 1, 1950

TITLE	No.	Price	Date	No. of Supplements	Amending Releases
Production Certificates.....	02	\$0. 10	8/1/46		
Airplane Airworthiness; Normal, Utility, Acrobatic, and Restricted Purpose Categories.....	3	Free		6	
Airplane Airworthiness.....	04	. 75	7/1/44		Nos. 193, 202.
Airplane Airworthiness.....	4a	Free		1	
Airplane Airworthiness; Transport Categories.....	4b	Free		1	
Aircraft Propeller Airworthiness.....	14	. 15	5/1/46		(Being revised.)
Aircraft Equipment Airworthiness.....	15				No. 272.
Aircraft Radio Equipment Airworthiness.....	16	Free	2/13/41		
Maintenance, Repair, and Alteration of Certificated Aircraft Engines, Propellers, and Instruments.....	18	1. 25	8/1/49		
Air-Traffic Control-tower Operator Certificates.....	26	Free		1	
Aircraft Dispatcher Certificates.....	27	Free		1	
Flight Navigator Certificates.....	34	Free		1	
Flight Engineer Certificates.....	35	Free		1	
Air Carrier Operating Certification.....	40	Free		1	
Certification and Operation Rules for Scheduled Air Carrier Operations Outside the Continental Limits of the United States.....	41	Free		6	
Irregular Air Carrier Certification and Operation Rules.....	42	1. 00	9/1/49	1	
General Operation Rules.....	43	Free		3	
Airmen Agency Certificates.....	51	Free		1	
Ground Instructor Rating.....	52	Free		1	
Repair Station Rating.....	53	Free	5/-/40		
Mechanic School Rating.....	54	. 15	7/1/48		
Parachute Loft Certificates and Ratings.....	54				
Scheduled Air Carrier Rules.....	61	Free		5	

NOTE: Manuals for which a price is listed may be obtained from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Remittances should be by check or money order, payable to the Superintendent. Items marked "free" may be obtained from the CAA Office of Aviation Information, Department of Commerce, Washington 25, D. C.

Air Regulations . on June 1, 1950

TITLE	No.	Price	Date	Number of Amendments	Applicable Special Regulations
Aircraft					
Airworthiness Certificates.....	1	\$0. 05	5/10/49		
Type and Production Certificates.....	2	. 05	8/1/49	1	SR-342
Airplane Airworthiness; Normal Utility, Acrobatic, and Restricted Purpose Categories.....	3	. 15	11/1/49	2	SR-342
Airplane Airworthiness.....	4a	. 20	4/7/50		SR-342, 344
Airplane Airworthiness; Transport Categories.....	4b	. 20	9/1/49	2	SR-342
Rotorcraft Airworthiness.....	6	. 05	3/1/50		
Aircraft Airworthiness; Limited Category.....	9	. 05	11/1/49		
Aircraft Engine Airworthiness.....	13	. 05	8/1/49	1	SR-342
Aircraft Propeller Airworthiness.....	14	. 05	11/1/49	1	SR-342
Aircraft Equipment Airworthiness.....	15	. 05	11/1/49	2	SR-342
Aircraft Radio Equipment Airworthiness.....	16	. 05	2/13/41		
Maintenance, Repair, and Alteration of Certificated Aircraft and of Aircraft Engines, Propellers, and Instruments.....	18	. 05	8/15/49		
Airmen					
Pilot Certificates.....	20	. 05	8/1/49	2	
Airline Transport Pilot Rating.....	21	. 05	8/15/49	1	
Lighter-than-air Pilot Certificates.....	22	. 05	11/1/49		
Mechanic Certificates.....	24	. 05	9/1/49		SR-340
Parachute Technician Certificates.....	25	. 05	11/1/49		
Air-traffic Control-tower Operator Certificates.....	26	. 05	11/1/49		
Aircraft Dispatcher Certificates.....	27	. 05	10/1/49	1	
Physical Standards for Airmen.....	29	. 05	10/1/49		
Flight Radio Operator Certificates.....	33	. 05	2/15/50		
Flight Navigator Certificates.....	34	. 05	11/1/49		
Flight Engineer Certificates.....	35	. 05	11/1/49		
Operation Rules					
Air Carrier Operating Certification.....	40	. 05	9/1/49		SR-333, 335, 341
Certification and Operation Rules for Scheduled Air Carrier Operations Outside the Continental Limits of the United States.....	41	. 05	11/15/49	1	
Irregular Air Carrier and Off-Route Rules.....	42	. 10	6/1/49	3	SR-334, 337
General Operation Rules.....	43	. 05	8/1/49	1	
Foreign Air Carrier Regulations.....	44	. 05	9/1/49		
Commercial Operator Certification and Operation Rules.....	45	. 05	11/15/49	1	SR-337, 343
Operation of Moored Balloons.....	48	. 05	9/1/49		
Transportation of Explosives and Other Dangerous Articles.....	49	. 10	7/20/49		
Air Agencies					
Airmen Agency Certificates.....	50	. 05	10/1/49	2	SR-336
Ground Instructor Rating.....	51	. 05	10/10/49		
Repair Station Rating.....	52	. 05	10/15/49		
Mechanic School Rating.....	53	. 05	10/15/49		
Parachute Loft Certificates and Ratings.....	54	. 05	10/15/49		
Air Navigation					
Air Traffic Rules.....	60	. 10	8/1/49		
Scheduled Air Carrier Rules.....	61	. 10	9/1/49	2	SR-334, 341
Notice and Reports of Aircraft Accidents and Missing Aircraft.....	62	. 05	5/1/49		

1 Certain aircraft may comply with the provisions of this part or part 4a.

NOTE: Civil Air Regulations are on sale at the prices indicated by the Superintendent of Documents, Government Printing Office, Washington, 25, D. C. Remittances should be by check or money order, payable to the Superintendent. Amendments and special regulations may be obtained from the Publications Section, Civil Aeronautics Board, Washington 25, D. C.

CAB Official Actions

(Continued from page 66)

Canada and Trinidad, on or about April 2, 1950, through the use of Tampa International Airport (Mar. 24).

E-4002 denies application of Skytrain Airways for exemption under § 416 (b) of the Act, so as to permit it to engage in certain non-scheduled operations pending hearing and determination of its certificate application in docket No. 2888 (Mar. 23).

E-4003 consolidates proceedings in dockets Nos. 4227, 4232, and 4245, relative to certain tariffs, into a single proceeding designated as docket No. 4227 et al. (Mar. 23).

E-4004 approves transfer of the foreign air carrier permit held by Air France to Compagnie Nationale Air France; approved by the President March 21, 1950 (Jan. 31).

E-4005 denies motion of Colonial, requesting that the Board issue a subpoena duces tecum in the matter of its mail rates over routes 71, 71-F, 72, and 72-F (Mar. 23).

E-4006 consolidates docket No. 3663, in the matter of the investigation of finances, routes, and operations of American, Eastern, TWA, and United, with docket No. 2849; severs portion of docket No. 2849 relative to mail rates of United on its route to San Juan, P. R., and assigns it to docket No. 2913 (Mar. 24).

E-4007 opinion and order in the *Service in New England States* case issue amended certificates to Northeast Airlines and E. W. Wiggins Airways; dismiss and deny all remaining applications (Mar. 24).

E-4008 denies application of Miami Airlines for an exemption under § 416 (b) of the Act, which would permit the carrier to operate flights in excess of those permitted by part 291 of the economic regulations, carrying Sunday newspapers and a weekly magazine (Mar. 27).

E-4009 denies petition of Air Transport Associates, requesting that the record be reopened for further hearing in the *United States-Alaska Service* case (Mar. 27).

E-4010 grants Pan American-Grace Airways permission to inaugurate nonstop service between certain points in Bolivia and Argentina (Mar. 27).

E-4011 grants British West Indian Airways permission to serve Miami, Fla., on its route between Trinidad, B. W. L., and the United States through the use of Miami International Airport, on or about April 1, 1950 (Mar. 27).

E-4012 authorizes Northwest Airlines to suspend service temporarily at Shanghai, China, for a period of 6 months or until such time as it can resume regularly scheduled service (Mar. 27).

E-4013 and E-4014 opinion and orders issue economic regulation, part 297, concurrently, with authority granted to certain air freight forwarders to engage in overseas and foreign air transportation of freight; denies all applications consolidated in the *Freight Forwarders* case for authority to engage as indirect air carriers in overseas and foreign air transportation; approved by the President March 24, 1950 (Sept. 8, 1949).

E-4015 approves agreement between Capital and various other air carriers and other carriers, relating to intercompany arrangements (Mar. 30).

E-4016 amends order serial No. E-2637, so as to extend to March 31, 1951, authority granted to Pacific Northern Airlines to suspend service over its route between the terminal points Anchorage and Flat, Alaska, via various intermediate points (Mar. 28).

E-4017 authorizes Southwest Airways Co. to omit the stop at Orville, Calif., on its route No. 76, during hours of darkness or until adequate night-lighting facilities are available (Mar. 29).

E-4018 grants the Seattle Chamber of Commerce leave to intervene in the matter of a proceeding to determine elimination or suspension of certain uneconomic competitive service between Minneapolis-Saint Paul, Minn., and Washington, D. C., and between Detroit, Mich., and Washington, D. C. (Mar. 29).

E-4019 opinion and order issue a foreign air carrier permit to Trans-Canada Air Lines; approved by the President March 29, 1950 (Mar. 14).

E-4020 orders and investigation of, and suspends for 90 days, certain fares, rules, and regulations proposed by Pan American World Airways (Mar. 30).

E-4021 denies petition of Northwest, requesting that the Board reopen for further hearing to receive new evidence in the *United States-Alaska Service* case (Mar. 30).

E-4022 denies application of Northwest for an exemption under § 416 (b) of the Act, which would permit it to serve Taipei, Formosa, as an intermediate point on its Pacific route (Mar. 30).

E-4023 approves agreement between Piedmont Aviation, various other air carriers, and other carriers, relating to intercompany arrangements (Mar. 30).

E-4024 approves agreement between United, various other air carriers, and other carriers, relating to intercompany arrangements (Mar. 30).

E-4025 approves agreement between United, various other air carriers, and other carriers, relating to intercompany arrangements (Mar. 30).

E-4026 approves agreement between Slick Airways, various other air carriers, and other carriers, relating to intercompany arrangements (Mar. 30).

E-4027 approves agreement between Railway Express Agency and various certificated air carriers, relating to air express service (Mar. 30).

E-4028 approves certain agreements involving Railway Express Agency, and various international air carriers, relating to customs brokerage service for international air cargo shipments (Mar. 30).

E-4029 approves agreements involving TWA, various other air carriers, and other carriers, relating to intercompany arrangements (Mar. 30).

E-4030 approves agreements numbered 3960, 3901, 3902, and 3903, involving Continental and Pioneer, relating to joint station services and facilities (Mar. 30).

E-4031 approves agreements numbered 1247A and 1247A2 et al., involving Air Cargo, American Airlines, various other air carriers, and other carriers, relating to intercompany arrangements (Mar. 30).

E-4032 approves agreements involving Air Cargo, American Airlines, various other air carriers, and other carriers, relating to intercompany arrangements (Mar. 30).

E-4033 approves agreements involving Mid-Continent Airlines, various other air carriers, and other carriers, relating to intercompany arrangements (Mar. 30).

E-4034 orders certain material relative to the mail rates of American Overseas Airlines, Pan American World Airways, and TWA be withheld from public disclosure (Mar. 31).

E-4035 grants Calasia Air Transport temporary exemption from

Scheduled Air Carrier Operations

(Source: CAB Form 41)

Domestic: March 1950

Operator	Revenue miles	Revenue passengers	Revenue passenger-miles (000)	Passenger seat-miles (000)	Revenue passenger load factor (percent)	Ton-miles flown		
						Express	Freight	United States mail
Trunk Lines								
American Airlines	3,298,033	171,682	85,420	140,788	60.67	354,453	1,870,886	619,426
Braniff Airways	963,384	52,390	17,587	34,194	51.43	93,936	154,591	115,822
Capital Airlines	1,582,814	88,758	26,013	56,316	46.19	198,074	719,156	125,325
Chicago & Southern Air Lines	605,263	25,514	9,115	16,682	54.64	49,086	72,241	48,517
Colonial Airlines	230,288	12,840	3,408	6,608	51.57	7,045	9,674	8,142
Continental Air Lines	464,218	15,230	5,301	13,064	40.58	8,150	34,629	16,823
Delta Air Lines	1,281,441	55,080	27,515	43,600	63.11	74,590	248,036	106,188
Eastern Air Lines	4,897,941	230,034	123,124	181,447	67.86	371,747	1,070,537	452,800
Inland Air Lines	228,544	6,244	2,235	4,319	51.75	3,978	9,512	8,326
Mid-Continent Airlines	695,947	27,166	7,923	14,615	54.21	18,605	38,291	26,337
National Airlines	1,115,641	40,298	27,366	44,137	62.00	81,832	213,683	72,813
Northeast Airlines	290,294	27,120	4,919	9,216	53.37	16,540	19,968	11,141
Northwest Airlines	1,713,502	54,500	31,211	68,877	45.31	139,633	573,824	243,453
Transcontinental & Western Air	3,638,820	110,674	76,777	128,955	59.54	477,857	1,134,417	790,756
United Air Lines	4,361,674	164,324	94,377	159,886	59.03	705,140	2,578,386	989,724
Western Air Lines	632,954	26,643	9,807	23,090	42.47	37,009	57,347	49,642
Trunk total	26,000,758	1,108,697	552,098	945,794	58.37	2,637,675	8,805,178	3,685,235
Feeder Lines								
All American Airways	234,337	8,009	1,135	4,921	23.06	7,601	0	3,110
Bonanza Air Lines	74,953	1,293	319	1,473	21.66	96	808	405
Central Airlines	156,604	640	78	470	16.60	0	0	1,312
Challenger Airlines	103,664	1,566	454	2,073	21.90	1,642	3,278	2,316
Empire Air Lines	91,723	3,282	612	1,926	31.78	1,095	0	1,519
Helicopter Air Service	28,262	0	0	0	—	0	0	1,653
Los Angeles Airways	31,027	0	0	0	—	0	0	3,728
Mid-West Airlines	120,906	476	69	484	14.26	0	0	2,083
Monarch Air Lines	151,482	2,276	599	2,727	21.64	1,861	7,907	3,788
Piedmont Aviation	269,143	8,093	1,633	5,652	28.89	4,766	7,103	9,616
Pioneer Air Lines	320,783	10,518	2,773	7,717	35.93	4,317	11,692	2,553
Robinson Airlines	144,427	4,031	670	1,829	36.63	3,999	4,874	3,390
Southern Airways	140,393	2,126	370	2,945	12.56	3,037	0	3,330
Southwest Airways	196,422	7,597	1,373	4,125	33.28	3,241	12,882	3,897
Trans-Texas Airways	253,730	4,315	1,009	5,328	18.94	2,093	4,527	4,695
Turner Airlines	69,931	571	85	698	12.18	1,422	0	754
West Coast Airlines	97,852	4,444	614	2,055	29.88	864	0	145
Wiggins, E. W. Airways	26,833	169	15	107	14.02	0	0	2,933
Wisconsin-Central Airlines	168,511	3,275	480	1,360	35.29	3,755	0	49,717
Feeder total	2,630,983	62,681	12,279	45,890	26.76	39,789	53,071	49,717
Territorial Lines								
Caribbean-Atlantic Airlines	50,733	7,543	604	1,284	47.04	0	2,269	792
Hawaiian Airlines	223,689	24,728	3,181	4,897	64.96	10,708	34,590	4,436
Territorial total	274,422	32,271	3,785	6,181	61.24	10,708	36,859	5,228
Grand total	28,906,163	1,203,649	568,162	997,865	56.94	2,688,172	8,895,108	3,740,180

International and Overseas: March 1950

Operator	Revenue miles	Revenue passengers	Revenue passenger-miles (000)	Passenger seat-miles (000)	Revenue passenger load factor (percent)	Ton-miles flown			
						Express	Freight	United States mail	Parcel post
American Airlines	176,867	7,018	5,586	8,423	66.32	943	113,441	9,166	0
American Overseas Airlines	453,258	10,578	16,696	21,916	76.18	226,292	0	94,127	34,806
Braniff Airways	179,153	1,304	2,836	7,575	37.44	0	41,647	2,187	0
Chicago & Southern Air Lines	184,362	1,889	2,258	7,587	29.76	0	80,654	2,128	180
Colonial Airlines	26,047	675	527	1,146	45.99	0	4,153	140	77
Eastern Air Lines	64,480	1,579	1,642	3,188	51.51	0	48,568	4,616	427
National Airlines	70,146	7,131	1,901	3,796	50.08	20,957	0	1,226	0
Northwest Airlines	491,857	3,332	6,434	12,646	50.88	7,764	451,978	165,137	0
Pan American World Airways:									
Atlantic Division	967,561	12,185	26,675	38,075	70.06	641,569	0	209,676	66,281
Latin American Division	2,340,174	65,810	47,437	80,193	59.17	2,128,199	0	252,252	0
Alaska Operations	192,225	2,778	2,794	5,569	50.15	315,360	0	31,033	0
Pacific Operations	812,600	6,330	16,094	35,462	45.38	434,825	0	460,075	0
Pan American-Grace Airways	490,635	8,806	9,635	18,141	53.11	132,503	0	29,181	1,875
Transcontinental & Western Air	975,034	9,445	26,468	32,846	80.58	0	447,808	236,929	40,701
United Air Lines	151,358	1,927	4,625	7,577	61.04	0	23,658	50,772	0
Uruba, Medellin & Central Airways	8,528	238	78	149	52.35	2,570	0	0	0
Total	7,584,285	141,025	171,686	284,289	60.39	3,910,982	1,211,907	1,548,645	144,347

the provisions of § 291.16 of the economic regulations so as to permit the carrier to continue its authorization under letter of registration No. 806, subject to certain conditions; grants United leave to intervene (Apr. 5).

E-4036 dismisses proceedings in dockets Nos. 325 and 848 in the matter of certain agreements between Railway Express Agency and various air carriers, relating to air express service (Apr. 3).

E-4037 opinion and order cancel certain fares, rules, and regulations relative to summer excursion trips, proposed by Eastern and National (Apr. 3).

E-4038 denies application of Arctic-Pacific, Inc., for classifi-

cation as a noncertificated cargo carrier under part 295 of the economic regulations (Apr. 5).

E-4039 orders an investigation of, and suspends from April 15 to June 30, certain "round-trip, short-limit excursion fares" proposed by Western Air Lines (Apr. 5).

E-4040 approves agreement temporarily until December 31, 1950, between Northwest Airlines and Hong Kong Airways, relating to the proposed charter of certain aircraft (Apr. 5).

E-4041 denies petition of Eastern requesting reconsideration of order serial No. E-3635, which granted Piedmont Aviation ex-

(Continued on page 70)

Scheduled Air Carrier Operations

(Continued on page 70)

International and Overseas: January-March 1950, 1949

Operator	Revenue miles, January-March		Revenue passengers, January-March		Revenue passenger-miles (000), January-March		Passenger seat-miles (000), January-March		Revenue passenger load factor (percent), January-March	
	1950	1949	1950	1949	1950	1949	1950	1949	1950	1949
American Airlines.....	583,436	571,382	21,575	18,609	17,377	16,460	27,451	25,804	63.30	63.79
American Overseas Airlines.....	1,194,352	1,640,093	25,389	15,638	37,614	30,693	58,091	58,500	64.75	52.47
Braniff Airways.....	511,906	308,211	3,873	2,408	4,414	4,414	21,865	14,025	36.73	31.47
Chicago & Southern Air Lines.....	534,409	345,726	5,687	5,767	7,100	6,117	21,993	17,128	32.28	35.71
Colonial Airlines.....	83,824	186,535	1,768	3,064	1,376	2,417	3,683	8,207	37.36	29.45
Eastern Air Lines.....	186,160	187,200	4,526	3,340	4,706	3,901	9,233	9,706	50.97	40.19
National Airlines.....	205,560	151,637	21,385	14,024	5,697	4,093	11,083	7,305	51.40	56.03
Northwest Airlines.....	1,378,410	1,446,584	8,708	7,491	16,741	14,751	34,474	33,732	48.56	43.73
Pan American World Airways:										
Atlantic Division.....	2,651,298	2,988,829	26,498	24,347	60,212	57,059	96,500	90,541	62.40	63.02
Latin American Division.....	6,863,058	7,564,628	187,025	193,656	136,097	141,972	238,689	263,885	57.02	53.80
Alaska Operations.....	532,417	575,307	7,043	7,091	7,267	7,660	15,753	16,873	46.13	45.40
Pacific Operations.....	2,369,240	4,090,802	17,815	18,509	46,200	54,371	99,399	93,541	46.48	58.13
Pan American-Grace Airways.....	1,403,359	1,435,890	24,007	24,287	25,314	29,144	51,958	47,452	48.72	61.42
Transcontinental & Western Air.....	2,686,356	2,785,153	21,765	16,932	58,367	50,254	89,988	93,565	64.86	53.71
United Air Lines.....	465,781	519,227	5,166	6,128	12,398	14,267	23,233	22,252	53.36	64.12
Uraba, Medellin & Central Airways.....	24,464	25,912	675	815	223	270	433	413	51.50	65.38
Total.....	21,674,030	24,823,116	382,905	361,526	444,720	437,843	803,826	802,929	55.33	54.53
Index (1949=100).....	87.31	100.00	105.91	100.00	101.57	100.00	100.11	100.00	101.47	100.00

Operator	Ton-miles flown							
	Express, January-March		Freight, January-March		United States mail, January-March		Parcel post, January-March	
	1950	1949	1950	1949	1950	1949	1950	1949
American Airlines.....	2,643	0	308,121	316,422	31,061	32,123	0	0
American Overseas Airlines.....	624,401	1,112,723	0	0	263,290	346,524	86,295	78,970
Braniff Airways.....	0	0	126,510	44,507	6,113	3,480	0	0
Chicago & Southern Air Lines.....	0	0	180,384	70,592	6,515	2,391	580	196
Colonial Airlines.....	0	0	6,999	24,112	612	2,132	132	302
Eastern Air Lines.....	0	0	124,250	134,968	13,504	12,047	658	395
National Airlines.....	56,765	75,305	0	0	3,574	3,081	0	0
Northwest Airlines.....	16,911	25,074	1,153,994	1,047,888	466,841	540,814	0	0
Pan American World Airways:								
Atlantic Division.....	1,764,726	2,080,444	0	0	559,326	573,957	163,802	70,889
Latin American Division.....	5,535,509	5,070,546	0	0	678,284	658,875	0	0
Alaska Operations.....	817,751	768,710	0	0	85,773	96,832	0	0
Pacific Operations.....	1,174,787	1,203,545	0	0	1,249,443	1,434,967	0	0
Pan American-Grace Airways.....	424,994	494,428	0	0	87,521	83,686	2,413	5,523
Transcontinental & Western Air.....	0	1,643,631	1,284,393	648,743	599,807	108,581	115,352	0
United Air Lines.....	0	35,436	69,563	0	139,326	199,561	0	0
Uraba, Medellin & Central Airways.....	7,264	11,147	0	0	0	0	0	0
Total.....	10,425,751	12,520,989	3,254,214	1,638,489	4,239,926	4,590,277	362,461	271,627
Index (1949=100).....	83.27	100.00	198.61	100.00	94.51	100.00	133.44	100.00

Aid Urged in Developing New Type Transports

(Continued from page 62)

cation of existing jet-powered military aircraft for use as commercial transport aircraft; and third, the design of completely new commercial transport category airplanes around turboprop or turbojet power plants."

Air Freight Undeveloped.—The importance of developing a cargo commercial transport aircraft cannot be overemphasized, Mr. Rentzel said. "The field of air freight represents one of the major undeveloped areas of the air transportation industry," he declared. "In large part, it has lagged behind in development due to the fact that we do not have, as of today, an efficient, economic, commercial cargo transport aircraft. This is, no doubt, due to the fact that until the advent of World War II, the aircraft manufacturing industry of the United States concentrated on the development of passenger carrying transport aircraft. A large percentage of those factors which dictate the design and performance characteristics of passenger carrying transport aircraft militate against the efficient and economic use of such aircraft for the transportation of cargo by air. Speed and its relation to wing loading, fuselage design and power plant installations, which are necessary for the efficient and economic operation of passenger carrying aircraft are, in many instances, inefficient and un-

economic when the same aircraft is used for transportation of cargo. The development of a commercial transport aircraft designed for the lowest possible operating cost per ton-mile is a major requirement of the air transportation industry of today."

Defense Factor Cited.—"Such a cargo aircraft is also, at this time, a major defense requirement. The existing deficiency in the airlift needs of the military makes it essential that an efficient, proved cargo aircraft be available in time of national emergency to meet that need. The gap between the emergency airlift requirement, and the ability of the combined military and civil transport fleet to fill that gap, is too great."

Mr. Rentzel said that, in his opinion, a completely new design of a commercial transport category aircraft is required in order to produce the economy and efficiency necessary for the successful operation of feeder airline service. Pointing out that 17 feeder airlines serve 165 communities of the United States, he declared: "We cannot expect the air transportation industry to furnish the air transport and air mail service that our smaller communities require unless they can secure at reasonable cost an aircraft which is efficient and economic for this type of operation. S. 3504 authorizes assistance in the development of this type of aircraft."

Engine Parts Shipments Boosts Total for Quarter

Civil aircraft engine shipments in March 1950 total 359 engines, representing 133,600 horsepower, and valued at \$1,724,000, according to a report issued jointly by the Civil Aeronautics Administration and the Bureau of the Census, Department of Commerce. Total shipment value—aircraft engines, engine parts, and all other products—was \$5,856,000, some \$1,492,000 more than in February and \$2,169,000 greater than in the same month a year ago.

Totals for the first 3 months of this year are well below 1949 in number but the industry's dollar value is almost 50 percent higher due principally to the sharp increase in shipments of engine parts.

Civil Aircraft Engine Shipments First Quarter, 1950-1949

	1950	1949	Percent increase or (decrease)
Number of engines.....	835	1,237	(33)
Value (thousand dollars):			
Aircraft engines.....	\$4,790	\$3,994	20
Engine parts.....	10,195	5,860	74
Other products.....	546	567	(4)
Total.....	15,531	10,421	49

Private Flying Decline During 1948 Is Noted By Aircraft Use Study

Private flying decreased by 7 percent during 1948 from the 16,334,000 hours recorded in 1947, and instructional flying still leads the list with 57 percent of the flying time reported.

In a report entitled "Aircraft Use in 1948," the third such annual report, the Civil Aeronautics Administration noted that instructional usage of private aircraft averaged 282 hours a year, while pleasure flying averaged only 58 hours per plane, all types totaling 15,130,000 hours. Business flying registered the largest gain of any type of flying for the second successive year. Volume of personal flying for pleasure showed relatively little change from previous years.

Average Use Drops.—Average use per aircraft dropped to 169 hours, compared with 189 hours in 1947. Amount of use varied considerably, however, according to the type of flying performed.

Although the small sized, single-engine aircraft were by far the most heavily used, and constituted the major portion of the United States civil aircraft fleet, a growing trend toward the use of planes with greater horsepower and seating capacity was evident.

Approximately 43 percent of the aircraft surveyed were equipped either with two-way radio or with receiver only and were therefore able to utilize the facilities of the Federal airways system.

Aircraft owners located in CAA regions 6 and 7, the Southwest and Northwest States, used their planes most, while there were more aircraft in use in region 3, the Midwest, than in any other section.

Industry Own Best Customer.—As in previous surveys, this one showed that the industry is its own best customer, with most plane ownership concentrated in the aviation industry. There was, however, evidence of a wider distribution than in previous years. During 1948, owners reporting aviation as their occupation held 43 percent of the aircraft and logged 59 percent of the total hours flown. In 1947, this group had held 50 percent of the aircraft and accounted for 68 percent of the flying time. The tapering off in instructional flying in connection with the shrinking of GI training activity accounted for this change.

Although noncertificated air carriers owned a total of 7,980 aircraft, most of their flying was instructional, only 10 percent of it being carriage of persons and cargo for hire.

Difficulties Revealed by Survey.—Findings of the survey, conducted with a sample of 16,000 planes selected at random from the 90,000 in use, reveal the difficulties faced by the private flying industry. In each of the three surveys, instructional flying accounted for a major portion of the flying. The reduction of GI training has produced repercussions throughout the industry.

Personal and business flying have not proved large enough to fill the void left by the diminishing Government contracts. The 1948 report pointed to one bright spot in the picture, which was the marked rise in business and farm flying, but this again was not adequate to offset the attrition in other types of flying.

The complete report, consisting of detailed interpretations and graphic illustrations of the general pattern of flying, regional differences in flying, occupations of aircraft owners, and the method by which the material was collected, is available from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., for 20 cents.

Scheduled Air Carrier Operations

(Continued on page 71)

Domestic: January-March 1950, 1949

Operator	Revenue miles January-March		Revenue passengers January-March		Revenue passenger- miles (000) January-March		Passenger seat- miles (000) January-March	
	1950	1949	1950	1949	1950	1949	1950	1949
Trunk Lines								
American Airlines	11,721,187	12,289,971	561,011	623,366	286,967	309,384	497,628	500,896
Brantiff Airways	2,720,646	2,649,035	134,823	122,585	45,095	41,070	92,948	85,026
Capital Airlines	4,356,923	4,364,001	233,720	202,789	68,630	58,273	155,804	142,165
Chicago & Southern Air Lines	1,684,344	1,698,663	64,258	62,224	23,117	22,343	46,465	44,426
Colonial Airlines	649,110	781,738	32,427	33,256	8,720	8,985	16,902	16,415
Continental Air Lines	1,332,800	1,350,531	39,981	34,872	13,967	12,525	37,473	34,804
Delta Air Lines	3,608,789	3,111,989	140,797	122,238	69,998	55,291	122,513	91,351
Eastern Air Lines	13,542,562	13,312,060	584,535	514,544	315,066	272,215	503,780	443,805
Inland Air Lines	676,001	551,667	18,216	17,477	6,764	5,838	12,920	10,846
Mid-Continent Airlines	1,982,198	1,853,534	74,201	69,463	21,666	20,813	41,626	38,924
National Airlines	3,092,537	2,274,427	106,798	80,184	71,635	49,176	122,419	95,027
Northeast Airlines	755,941	794,858	59,040	54,246	10,939	10,268	24,246	24,945
Northwest Airlines	4,674,263	3,764,190	145,040	118,094	85,293	58,566	190,631	134,981
Transcontinental & Western Air	10,164,635	11,720,149	278,700	261,435	189,669	177,697	353,831	356,112
United Air Lines	11,952,520	11,171,199	420,377	404,189	244,123	237,398	443,277	395,430
Western Air Lines	1,727,441	1,445,054	69,096	59,400	25,915	22,475	63,507	47,531
Trunk total	74,641,897	73,133,066	2,965,020	2,780,362	1,487,564	1,362,317	2,725,970	2,462,684
Index (1949=100)	102.06	100.0	106.64	100.0	109.19	100.0	110.69	100.0
Feeder Lines								
All American Airways	624,719	444,595	18,845	809	2,612	93	13,119	962
Bonanza Air Lines	215,216	—	3,510	—	881	—	4,145	—
Central Airlines	401,201	—	1,333	—	157	—	1,204	—
Challenger Airlines	292,447	381,512	4,436	5,863	1,272	1,594	5,848	7,851
Empire Air Lines	257,253	242,224	8,752	6,765	1,629	1,436	5,389	5,087
Florida Airways (ceased opr. 3/28/49)	—	193,120	—	3,026	—	409	—	1,542
Helicopter Air Service	74,301	—	0	—	0	—	0	—
Los Angeles Airways	81,365	84,717	0	0	0	0	0	0
Mid-West Airlines	336,512	—	1,328	—	193	—	1,347	—
Monarch Air Lines	433,650	389,792	5,977	4,678	1,524	1,213	7,806	7,016
Piedmont Aviation	750,599	604,786	20,189	12,894	4,165	2,813	15,766	12,701
Pioneer Air Lines	913,032	879,721	26,215	20,110	7,043	5,478	21,993	21,267
Robinson Airlines	243,013	187,293	9,387	7,725	1,485	1,155	4,634	3,932
Southern Airways	418,858	—	5,336	—	935	—	8,755	—
Southwest Airways	551,211	581,940	19,753	20,892	3,609	3,989	11,576	12,222
Trans-Texas Airways	721,433	565,044	10,763	6,959	2,476	1,722	15,149	11,866
Turner Airlines	144,175	—	1,256	—	195	—	1,724	—
West Coast Airlines	261,754	276,318	10,032	10,921	1,397	1,394	5,497	5,803
Wiggins, E. W., Airways	70,443	—	369	—	35	—	281	—
Wisconsin-Central Airlines	458,443	288,863	8,511	3,287	1,290	466	3,678	2,327
Feeder total	7,249,625	5,119,925	155,992	103,929	30,898	21,671	127,911	92,576
Index (1949=100)	141.60	100.0	150.09	100.0	142.58	100.0	138.17	100.0
Territorial Lines								
Caribbean-Atlantic Airlines	142,652	158,823	19,632	23,905	1,590	1,710	3,513	3,917
Hawaiian Airlines	644,083	656,601	70,104	71,732	9,120	10,011	14,200	14,662
Territorial total	786,735	815,424	89,736	95,637	10,710	11,721	17,713	18,579
Index (1949=100)	96.48	100.0	93.83	100.0	91.37	100.0	95.34	100.0
Grand total	82,677,126	79,068,415	3,210,748	2,979,928	1,529,172	1,395,709	2,871,594	2,573,839
Index (1949=100)	104.57	100.0	107.75	100.0	109.56	100.0	111.57	100.0

CAB Official Actions

(Continued from page 68)

emption from § 401 (a) of the Act, so as to permit it to serve Winston-Salem, N. C., as an intermediate point to Danville, Va. (Apr. 5).

E-4042 dismisses proceeding of suspension and investigation of certain fares, rules, and regulations proposed by United (Apr. 5).

E-4043 dismisses complaint of Western Air Lines, requesting that the Board suspend and investigate certain fares proposed by Southwest Airways Co. (Apr. 5).

E-4044 grants C. N. Shelton, d. b. a. C. N. Shelton & Co., exemption from the provisions of § 291.18 of the economic regulations, so as to permit the transfer of letter of registration No. 1960 to Aero Finance Corp., a Florida corporation (Apr. 6).

E-4045 denies motion of Cockett Airlines for a temporary interim exemption under § 416 (b) of the Act, authorizing certain transportation of persons and property in the territory of Hawaii (Apr. 6).

E-4046 authorizes All American Airways to suspend service temporarily at Athens, Ohio, for 1 year, or until an adequate airport is available (Apr. 6).

E-4047 fixes a temporary mail rate for Robinson Airlines Corp. over its entire system (Apr. 7).

E-4048 opinion and supplemental order modify minimum rates in the Air Freight Rate Investigation case (Apr. 10).

E-4049 authorizes Pan American World Airways to suspend service temporarily at Shanghai, China, for a period of 6 months or until regularly scheduled service can be resumed (Apr. 10).

E-4050 opinion and order approve, subject to certain conditions, acquisition of Arizona Airways by Monarch Air Lines, and merger or consolidation of the two corporations (Apr. 10).

E-4051 amends order serial No. E-3108, so as to include employees of the General Electric Co. in the matter of an exemption granted to Northwest Airlines, permitting free transportation to technical employees associated in the development of Boeing 377 aircraft (Apr. 10).

E-4052 orders Pan American World Airways to show cause why the Board should not fix a certain temporary mail rate over its Latin American routes (Apr. 11).

E-4053 amends order serial No. E-3475 in the matter of a temporary exemption granted to American Airlines from the provisions of § 401 (a) of the act (Apr. 10).

E-4054 amends order serial No. E-3474 in the matter of a temporary exemption granted to United from the provisions of § 401 (a) of the act (Apr. 11).

E-4055 denies application of General Airways, requesting temporary exemption from the provisions of part 291 of the economic regulations, which would permit the carrier to engage in 55 flights carrying turkey poult only from Portland, Oreg., to Salt Lake City, Utah (Apr. 11).

E-4056 denies petition of TWA, for leave to intervene in the matter of the revocation of certain letters of registration (Apr. 11).

E-4057 grants the city of El Paso, Tex., leave to intervene in the matter of the renewal and amendment of the certificate held by Pioneer Air Lines, and the temporary suspension, in part, of certificates held by Continental, Braniff, and American (Apr. 11).

E-4058 rescinds order serial No. E-3887, dated February 8, 1950, in the matter of withholding from public disclosure certain information relative to the mail rate proceeding of Florida Airways (Apr. 12).

E-4059 amends order serial No. 1933, issued September 14, 1942, so as to approve interlocking relationships existing as a result of the holding by W. J. Scott of certain positions in certain companies which are members of the Santa Catalina Island system (Apr. 12).

E-4060 amends order serial No. E-4039, in the matter of the investigation and suspension of certain 7-day round trip excursion fares proposed by Western Air Lines (Apr. 13).

E-4061 orders Pan American Grace Airways to show cause why the Board should not fix a certain temporary mail rate over its entire system (Apr. 13).

E-4062 authorizes Nathan C. Browne, d. b. a. Nat Browne Flying

(Continued on page 71)

Scheduled Air Carrier Operations

(Continued from page 70)

Domestic: January-March 1950, 1949

Operator	Revenue passenger load factor (percent) January-March		Ton-miles flown					
			Express January-March		Freight January-March		United States mail January-March	
	1950	1949	1950	1949	1950	1949	1950	1949
Trunk Lines								
American Airlines.....	57.67	61.77	1,300,205	1,153,749	6,575,521	6,566,915	2,107,256	2,289,830
Braniff Airways.....	48.52	48.30	228,101	179,157	349,864	222,150	294,146	262,696
Capital Airlines.....	44.05	40.99	493,088	369,180	1,776,391	1,413,155	326,969	253,099
Chicago & Southern Air Lines.....	49.75	50.29	125,492	117,542	180,673	108,342	132,345	132,581
Colonial Airlines.....	51.59	54.74	15,782	9,907	22,426	19,099	21,694	23,263
Continental Air Lines.....	37.27	35.99	20,793	20,654	84,352	72,613	47,546	46,667
Delta Air Lines.....	57.14	60.53	200,195	154,219	594,226	357,740	286,747	240,332
Eastern Air Lines.....	62.54	61.34	980,801	865,299	2,931,952	2,136,592	1,219,785	1,333,506
Inland Air Lines.....	52.35	53.83	11,101	15,616	22,284	22,544	24,073	28,649
Mid-Continent Airlines.....	52.05	53.47	49,143	39,688	93,750	66,841	73,075	73,065
National Airlines.....	58.52	51.75	187,391	118,983	617,054	296,729	191,107	165,138
Northeast Airlines.....	45.12	41.16	37,989	17,973	41,810	41,160	27,287	23,457
Northwest Airlines.....	44.74	43.39	370,561	349,691	1,302,729	1,034,048	662,856	555,412
Transcontinental & Western Air.....	53.60	49.90	1,160,513	1,071,848	2,800,233	2,565,459	1,988,101	2,199,947
United Air Lines.....	55.07	60.04	1,827,788	1,439,010	5,795,701	5,197,651	2,645,190	2,396,354
Western Air Lines.....	40.81	47.28	98,221	62,503	136,751	113,323	156,190	107,769
Trunk total.....	54.57	55.32	7,107,164	5,985,019	23,325,717	20,234,361	10,204,367	10,131,765
Index (1949=100).....	98.64	100.0	118.75	100.0	115.28	100.0	100.72	100.0
Feeder Lines								
All American Airways.....	19.91	9.67	18,995	6,499	0	0	8,925	10,928
Bonanza Air Lines.....	21.95	-	242	-	1,567	-	1,079	-
Central Airlines.....	13.04	-	0	-	0	-	3,917	-
Challenger Airlines.....	21.75	20.30	5,305	12,463	9,737	17,314	6,776	10,956
Empire Air Lines.....	30.23	28.23	2,695	2,734	0	0	4,030	4,520
Florida Airways (ceased opr. 3/28/49).....	26.52	26.52	-	660	-	0	-	1,812
Helicopter Air Service.....	-	-	0	-	0	-	4,146	-
Los Angeles Airways.....	-	-	0	0	0	0	9,925	10,343
Mid-West Airlines.....	14.33	-	0	-	0	-	3,900	-
Monarch Air Lines.....	19.52	17.29	4,836	3,297	20,691	13,086	5,766	5,452
Piedmont Aviation.....	32.02	22.15	11,859	6,326	17,720	6,539	9,925	7,443
Pioneer Air Lines.....	32.05	29.37	7,573	5,417	26,287	12,714	24,475	20,410
Robinson Airlines.....	10.68	-	7,230	0	8,089	3,866	5,126	3,298
Southern Airways.....	31.18	31.89	7,638	6,970	29,391	23,364	10,723	12,013
Southwest Airways.....	16.34	14.51	7,217	3,692	12,175	1,865	12,422	15,434
Trans-Texas Airways.....	11.31	-	2,262	0	0	0	806	-
Turner Airlines.....	25.41	24.02	1,987	1,822	0	0	2,032	2,108
West Coast Airlines.....	12.46	-	0	0	0	0	332	-
Wiggins, E. W., Airways.....	35.07	20.03	8,105	3,161	0	0	7,035	3,723
Wisconsin-Central Airlines.....	24.16	23.41	95,635	53,041	125,657	78,748	130,813	108,440
Feeder total.....	103.20	100.0	180.30	100.0	159.57	100.0	120.63	100.0
Territorial Lines								
Caribbean-Atlantic Airlines.....	45.26	43.66	0	0	6,933	8,047	2,084	2,094
Hawaiian Airlines.....	64.23	68.28	29,277	32,049	95,908	107,245	12,411	12,092
Territorial total.....	60.46	63.09	29,277	32,049	102,841	115,292	14,495	14,186
Index (1949=100).....	95.83	100.0	91.35	100.0	89.20	100.0	102.18	100.0
Grand total.....	53.25	54.23	7,232,076	6,070,109	23,554,215	20,428,401	10,349,675	10,254,391
Index (1949=100).....	98.19	100.00	119.14	100.00	115.30	100.00	100.93	100.00

Domestic Passenger-Miles Flown (Total Revenue and Nonrevenue) in Thousands

	January	February	March	Total
Trunk.....	488,983	488,409	574,493	1,551,885
Feeder.....	10,266	10,425	12,551	33,242
Territorial.....	3,547	3,497	3,841	10,885
Total.....	502,796	502,331	590,885	1,596,012

CAB Official Actions

(Continued from page 70)

Service, to abandon his certificate and cancels it; approved by the President April 13, 1950 (Mar. 31).

E-4063 extends to September 29, 1950, temporary exemption granted to Pan American World Airways, which would permit the carrier to serve Nice, France, as a coterminal point with Marseille, France (Apr. 14).

E-4064 denies application of Transocean Air Lines for exemption from § 416 (b) of the act, which would permit the carrier to operate one round-trip flight carrying members of the British War Brides of Los Angeles, Calif., between Los Angeles and London, England (Apr. 14).

E-4065 grants Piedmont Aviation temporary suspension of service at Fayetteville, N. C., and temporary exemption from § 401 (a) of the act, so as to permit the carrier to serve Raleigh-Durham, N. C., as an intermediate point between Charlotte and Wilmington, N. C. (Apr. 14).

E-4066 extends for 90 days, periods of suspension of certain rules under investigation, proposed by National and Eastern (Apr. 14).

E-4067 dismisses complaint of Chicago and Southern Air Lines, in the matter of certain round-trip fares proposed by Braniff (Apr. 14).

E-4068 dismisses proceeding of investigation and suspension in the matter of certain fares proposed by Braniff (Apr. 14).

E-4069 dismisses proceeding of investigation and suspension in the matter of certain fares proposed by Pioneer Air Lines (Apr. 14).

E-4070 dismisses proceeding of investigation and suspension in the matter of certain fares proposed by Trans-Texas Airways (Apr. 14).

E-4071 dismisses proceeding of investigation and suspension in the matter of certain fares proposed by Trans-Texas Airways (Apr. 14).

E-4072 grants TWA, United, and Western leave to intervene in the matter of the application of American Airlines, for the carriage of property and mail between certain points in California and Arizona (Apr. 14).

Helpful Publications

Publications listed below are on sale by the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Orders must be accompanied by money order or check made payable to the Superintendent of Documents.

Flight Assistance

Airman's Guide and Flight Information Manual..... \$6 a year

(The Airman's Guide, published every 2 weeks, contains three sections: Directory of Airports, Radio Facility Data, and Notices to Airmen. The Flight Information Manual supplements the Airman's Guide and is issued semiannually.)

Airports

Airport Accounting, Budgeting, and Insurance..... 15 cents

(In three parts, with applicable charts and diagrams.)

Airport Buildings..... 20 cents
(Problems of airport building design are discussed and several solutions suggested.)

Airport Design..... 30 cents

(Provides basic information on all phases of airport construction.)

Airport Drainage..... 30 cents

(Contains information helpful in developing an efficient and economical airport drainage system.)

Airport Financial Statements..... 15 cents

(Presents recommended financial forms to meet the need of airports.)

Airport Turfing..... 25 cents

(A guide for airport owners, operators, builders, and others interested in the development of turf for airports. Describes various problems involved and presents methods used in establishing and maintaining a good turf.)

Legislative History of the Federal Airport Act (Two Volumes)..... \$4 a set

(Gives in detail congressional proceedings leading up to the adoption of the Federal Airport Act.)

Small Airports..... 15 cents

(Answers many problems confronting communities or individuals who want to build a small airport.)

Standard Specifications for Construction of Airports..... \$2

(Contains specification items for construction of airports and air parks. Covers clearing and grubbing, grading, drainage, paving, lighting, turfing, and incidental construction.)

Flight Training

Aircraft Powerplant Handbook..... \$1.25

(For students, mechanics, pilots, and engineers who have only superficial knowledge of aircraft powerplant fundamentals.)

Facts of Flight..... 50 cents

(A nontechnical manual, with chapters on airplane flight, stalls, spins, airplane structure, airplane engines, flying the plane, airport traffic, seaplanes, and safety in flight.)

Path of Flight..... 40 cents

(Practical information about basic navigation of aircraft, presented in brief form for the use of the private pilot.)

Realm of Flight..... 60 cents

(Presents practical information about the effect of atmospheric conditions upon flight.)

Commercial Pilot Examination Kit..... 30 cents

(Contains a summary of subject matter on which the examination is based, reference material for study, and four groups of examination questions similar to those used in the official certifying examination.)

Flight Instructor Oral Examination Guide-book..... 5 cents

(Prepared as an aid to the prospective applicant for a flight instructor rating.)

Miscellaneous

Industrial Flying..... 10 cents

(A brief description of various uses for the airplane in industrial flying.)

Student Pilot Guide..... 10 cents

(Presents information of particular importance to student pilots during the early stages of flight training.)

Terrain Flying..... 25 cents

(Describes the special problems and hazards encountered in flying over various kinds of terrain and proper precautions.)

Airports for National Park Areas Made Possible by New Legislation

Legislation recently approved by President Truman makes possible the development of airports near the entrances of national parks and monuments, it has been announced jointly by the Departments of Commerce and Interior.

Under the new act, Public Law 463, the Secretary of the Interior is authorized to acquire, construct, operate, and maintain public airports outside but close to the entrances of these areas. The projects will be sponsored by the Department of Interior in cooperation with local governmental agencies and with the assistance of the Civil Aeronautics Administration of the United States Department of Commerce, pursuant to the Federal Airport Act of 1946. Authorization for an appropriation of \$2,000,000 to the Department of Interior for this program is contained in the new act.

CAA Cooperation Cited.—Secretary Chapman attributed the new authority largely to the cooperation extended to the Department of the Interior by the Civil Aeronautics Administration. He pointed to other instances of such cooperation by the CAA and mentioned specifically CAA Administrator D. W. Rentzel's recent agreement to show on the backs of sectional aeronautical charts, along with other navigational and airport data, information regarding the principal national parks and monuments within areas covered by each chart.

Information to be incorporated on forthcoming charts will include a vicinity map of the park or parks concerned, and a statement that, in the interest of preserving the natural features of the area, Department of the Interior regulations cannot permit aircraft landings within the parks. But flyers are invited to view these areas from the air and visit them on the ground after landing at a nearby airport.

The charts will also contain a statement that the Secretary of the Interior has requested pilots to maintain altitudes at least 2,000 feet above the terrain, so that the quiet enjoyment of the parks will not be disturbed.

To Stimulate Aviation.—Secretary of Commerce Charles Sawyer stated that airports located near our national parks will give an added stimulus to civil aviation and especially to personal flying all over the country. The Secretary added that, following studies made jointly by the two agencies, airport sites tentatively have been selected in close proximity to the entrances of the major parks and monuments. Several will be included in CAA's national airport plan for 1950, including one near West Yellowstone, Mont., to serve Yellowstone National Park. The existing field does not meet minimum acceptable standards

and scheduled services to that airport were abandoned in 1948.

Interior Secretary Oscar Chapman stated: "This legislation holds out the prospect that, within the next few years, both commercial and pleasure planes will have facilities for reaching the national parks and monuments without any need of installing landing fields and appurtenant facilities within them. We have been mindful of the Congressional mandate that these areas must be protected without serious damage to or modification of the landscape. However, we are just as mindful of the fact that the airplane is an important means of enabling persons living at great distances from the parks to visit them during comparatively short vacation periods. With this extended authority, we can now move forward to formulate a construction program designed to meet the needs of air travelers."

U. S. International Airlines Set World Safety Record

The Civil Aeronautics Board has announced that during the past 2 years United States scheduled international air carriers achieved a world safety record and a world airlift record.

The Board revealed that United States flag airlines operating internationally in scheduled service for the 2-year period ending April 14, 1950, had transported nearly 3,000,000 passengers throughout the world without a single passenger fatality. The Board reported that this was also the largest number of passengers ever carried in a 2-year period by the airlines of any nation in international commercial air transport history. To achieve this world air safety and airlift record, American flag air carriers flew some four billion passenger-miles, the Board said.

At the present time American air carriers are certificated by the Board to operate 203,678 route miles internationally, and to serve 239 foreign points on all the continents of the world.

Pilots Urged to File Voluntary Flight Plans In New Defense Areas

Voluntary filing of flight plans by pilots entering newly activated air defense areas in the Northwest and along the Canadian border has been requested by D. W. Rentzel, Administrator of Civil Aeronautics.

The conditions under which flight plans are desired parallel those already specified for the northeast coast and the Albuquerque, N. Mex., areas. The procedure is part of a cooperative program between CAA, the Defense Department, and civil aviation groups, whereby CAA will transmit to the Air Force information on friendly aircraft penetrating defense areas, thus minimizing the need for in-flight identification by fighter planes.

The Administrator requested filing of flight plans, starting May 5, by all airmen proposing south-bound flights which will cross the Canadian border east of the 87th meridian (Lake Michigan). The request does not apply to flights within continental United States adjacent to this area, or north-bound crossings of the Canadian border.

Northwest Area Defined.—The northwest air defense area runs from North Bend, Oreg., to Ontario, Oreg., northeast to Superior, Mont., north to the Canadian border, westward along the border to the Pacific and south along the coast to North Bend.

The CAA requests flight plans by airmen approaching this area, at any altitude, from Canada, or from more than 20 nautical miles seaward, or from pilots flying coastwise adjacent to this area more than 20 nautical miles seaward.

Flight plans are requested from pilots approaching this area from within the continental United States, only if they are operating at more than 4,000 feet above the immediate terrain, or at more than 10,000 feet above mean sea level, whichever is higher. This will eliminate filing for a large volume of low-altitude flights by flying farmers, student pilots, and others.

The prohibited area in the immediate vicinity of Hanford, Wash., established in 1948, remains out-of-bounds for all air traffic.

As of June 1, a Pacific Ocean air defense area was added to the areas where flight plans are encouraged. It covers flights approaching the west coast from a distance greater than 20 nautical miles, between the United States-Mexican border and the Canadian-United States border.

Deputy Director Named For Office of Airports

Appointment of Merle W. Hemphill as deputy director of the CAA Office of Airports has been announced by D. W. Rentzel, Administrator of Civil Aeronautics.

Hemphill was first employed by the CAA in September 1946, as assistant chief, airports division in region 3, with headquarters in Chicago. He was named chief of the airports division in the third region in August 1948. On January 1, 1950, he was chosen as one of the six men to participate in the CAA executive training program, an 8-month course of training in all CAA operations.

Prior to his CAA employment, Hemphill served with the aviation division of the Navy Bureau of Yards and Docks.

Available Films and Filmstrips Listed by CAA

Approximately 300 motion-picture films and 150 filmstrips are listed in the latest Civil Aeronautics Administration catalog of visual education aids available for loan to educational institutions, aviation and civic groups, and other interested organizations.

The new catalog, just off the press, supersedes the one published in April last year and subsequent supplements. It may be obtained by writing CAA's Office of Aviation Information in Washington or at any CAA regional office.

Last year, films and filmstrips distributed by CAA received 41,000 showings, and were seen by an audience of 1,500,000, almost 70 percent of them in educational institutions.

Some of the films, which deal with subjects of importance to the study of aviation and its related

fields, have been prepared by the CAA, by the Air Force and Navy Departments, and others by the aviation industry—manufacturers, State groups, individual airlines, etc.

They are used in CAA's training programs for its own personnel, and also are available on a loan basis, to secondary schools, colleges, universities, commercial airlines, and others interested in the study of aviation.

Films may be borrowed for periods not to exceed 2 weeks, from nine CAA film centers located in major cities in this country and in Anchorage, Alaska, and Honolulu, or from CAA headquarters in Washington.

Begun late in 1946, the CAA program for lending of films has demonstrated a continued upward trend, both in number of showings and in total audience.

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